

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



July 5, 2011

Stuart D. Tom, P.E., CBO
Building Official
Community Planning Department
City of Glendale
633 E. Broadway, Rm 101
Glendale, CA 91206

Dear Mr. Tom:

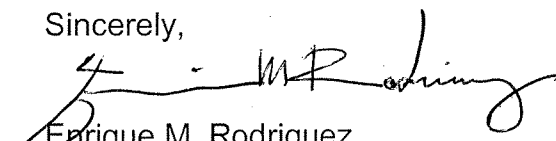
This letter is to acknowledge receipt on June 27, 2011 of the City of Glendale submittal pertaining to Ordinance No. 5736 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code Section 17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,


Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings



CITY OF GLENDALE, CALIFORNIA
COMMUNITY PLANNING DEPARTMENT
BUILDING AND SAFETY DIVISION

633 E. BROADWAY, RM 101
GLENDALE, CA 91206
(818) 548-3200, (818) 548-3215 FAX
www.ci.glendale.ca.us

June 23, 2011

Mr. David Walls, Executive Director
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

***** Certified Mail *****

Subject: Local Amendments to the 2010 California Green Building Standards Code and
Local Justifications

Dear Mr. Walls,

Attached hereto, please find a complete analysis of local amendments to the California Green Building Standards Code, adopted by the Council of the City of Glendale, California. Such amendments are justified on the basis of one or more local climatic, geologic and/or topographic conditions as specifically and individually identified in the attached analysis.

The amendments are individually identified in the attached **Ordinance No. 5736**, adopted June 7, 2011.

Each amendment has been individually and expressly justified as identified in the attached **Resolution No. 11-108**, adopted on June 7, 2011.

Should you have any questions, please do not hesitate to contact me at (818) 548-3214

Sincerely,

Stuart D. Tom, P.E., CBO
Building Official

Attachments (2): Ordinance No. 5736
Resolution No. 11-108

cc: Ardashes Kassakhian, City Clerk
Christina Sansone, General Counsel/PW
File Copy

RECEIVED
2011 JUN 27 A 10:43
CALIFORNIA BUILDING
STANDARDS COMMISSION



AN ORDINANCE OF THE COUNCIL OF THE CITY OF GLENDALE AMENDING SECTION 202, 301.1, ADDING SECTIONS 301.2, 4.106.4, 4.203, 4.205, 4.207, 4.208, 4.211, 4.509, 5.203, 5.205, 5.208, 5.211 AND RESERVING SECTIONS 4.202, 4.204, 4.206, 4.209, 4.210, 5.202, 5.204, 5.206, 5.207, 5.209, 5.210 OF THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE, ADOPTED AS VOLUME IX, OF THE GLENDALE BUILDING AND SAFETY CODE, 2011.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF GLENDALE:

SECTION 1. Section 202 of Volume IX of the Glendale Building and Safety Code, 2011, the definition for LOW-RISE RESIDENTIAL is hereby amended to read as follows. All other definitions in Section 202 shall remain without change.:

SECTION 202

DEFINITIONS

LOW-RISE RESIDENTIAL. A building that is of Occupancy R and is six stories or less, or that is a one- or two-family dwelling or townhouse.

SECTION 2. Sections 4.303.1, 4.303.2, and 4.303.3 listed in the Residential Occupancies Application Checklist in Section A4.602 are hereby adopted by reference and are hereby incorporated herein as if fully set forth.

SECTION 3. Section 301.1 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

301.1 Scope. Buildings and structures shall be designed to include the green building measures indicated in Section 301.2.

SECTION 4. Section 301.2 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

301.2 Applicability. Buildings and structures shall comply with all the requirements specified in this Section relative to occupancy type, size, number of stories, and number of units.

301.2.1 Low-rise residential buildings. Newly constructed low-rise residential buildings as defined in Chapter 2 of this Code shall comply with all applicable requirements of Chapter 4, Residential Mandatory Measures.

301.2.2 Non-low-rise residential buildings. Newly constructed buildings other than those defined in Chapter 2 of this Code as low-rise residential buildings shall comply with all applicable requirements of Chapter 5, Nonresidential Mandatory Measures.

301.2.3 Single family dwellings greater than 5,000 square feet. In addition to the provisions as outlined in Section 301.1 of this code, any newly constructed single family dwellings greater than 5,000 square feet not including the garage area shall comply with CALGreen Tier 1 pursuant to Section 305.1.1.

SECTION 5. Section 4.106.4 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

4.106.4 Water permeable surfaces. Permeable paving is utilized for the parking, walking or patio surfaces in compliance with the following.

Not less than 20 percent of the total on-grade, residential uncovered parking, walking or patio surfaces shall be permeable.

Exceptions:

1. The primary driveway, primary entry walkway and entry porch or landing shall not be included when calculating the area required to be a permeable surface.

2. Required accessible routes for persons with disabilities as required by
California Code of Regulations, Title 24, Part 2, Chapter 11A and/or Chapter
11B as applicable.

SECTION 6. Section 4.202 of Volume IX of the Glendale Building and Safety
Code, 2011, is hereby reserved:

SECTION 4.202

DEFINITIONS

(Reserved)

SECTION 7. Section 4.203 of Volume IX of the Glendale Building and Safety
Code, 2011, is hereby added to read as follows:

SECTION 4.203

PERFORMANCE APPROACH

4.203.1 Energy performance. When using an Alternative Calculation Method (ACM)
approved by the California Energy Commission, calculate each building's energy and CO₂
emissions, and compare it to the standard or "budget" building to achieve the following:

Exceed the *California Energy Code* based on the 2008 energy standards
requirements by 15 percent. Field verify and document the measures and
calculations used to reach the desired level of efficiency following the
requirements specified in the Title 24 Reference Appendices.

SECTION 8. Section 4.204 of Volume IX of the Glendale Building and Safety
Code, 2011, is hereby reserved:

SECTION 4.204

PRESCRIPTIVE APPROACH

(Reserved)

SECTION 9. Section 4.205 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 4.205

BUILDING ENVELOPE

4.205.1 Radiant roof barriers. Radiant roof barrier shall be installed in all new buildings. The radiant barrier must be tested according to ASTM C-1371-98 or ASTM E 408-71(2002) and must be certified by the Department of Consumer Affairs. Radiant barriers must also meet installation criteria specified in Section RA4.2.2 of the *California Energy Commission Residential Appendices*.

SECTION 10. Section 4.206 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 4.206

AIR SEALING PACKAGE

(Reserved)

SECTION 11. Section 4.207 of Volume IX of the Glendale Building and Safety Code, 2011, is added to read as follows:

SECTION 4.207

HVAC DESIGN, EQUIPMENT AND INSTALLATION

4.207.1 Gas-fired heating equipment. Gas-fired (natural or propane) space heating equipment requires an Annual Fuel Utilization Ratio (AFUE) of .90 or higher.

4.207.2 Cooling equipment. When climatic conditions necessitate the installation of cooling equipment, select cooling equipment with a Seasonal Energy Efficiency Ratio (SEER) higher than 13.0 and an Energy Efficiency Ratio (EER) of at least 11.5.

SECTION 12. Section 4.208 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 4.208

**WATER HEATING DESIGN,
EQUIPMENT AND INSTALLATION**

4.208.1 Tank type water heater efficiency. The Energy Factor (EF) for a gas-fired storage water heater shall be higher than .60.

4.208.2 Tankless water heater efficiency. The Energy Factor (EF) for a gas-fired tankless water heater shall be .80 or higher.

SECTION 13. Section 4.209 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 4.209

LIGHTING

(Reserved)

SECTION 14. Section 4.210 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 4.210

APPLIANCES

(Reserved)

SECTION 15. Section 4.211 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 4.211

RENEWABLE ENERGY

4.211.1 Space for future solar installation. A minimum of 250 square feet of unobstructed roof area facing within 30° of south is provided for future solar collector or photovoltaic panels. Rough-in penetrations through the roof surface within 24 inches (610 mm) of the boundary of the unobstructed roof area are provided for electrical conduit and water piping.

Exceptions:

1. For roofs with an area of less than 1000 square feet, the unobstructed space may be reduced to 25% of the roof area.
2. Buildings designed and constructed with a solar photovoltaic system or an alternate system with means of generating electricity at time of final inspection are exempt from this requirement.
3. Where it is not feasible to provide one contiguous area due to the roof configuration, two unobstructed roof areas with a minimum combined area of 250 square feet may be provided.
4. Buildings designed with a green roof making it unfeasible to provide this area are exempt from this requirement.

4.211.2 Future access for solar system. A minimum one-inch (25.4 mm) electrical conduit is provided from the electrical service equipment to an accessible location in the attic or other location approved by the enforcing agency.

SECTION 16. Section 4.509 Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 4.509

NATURAL LIGHT AND VENTILATION

4.509.1 Natural light. The minimum net glazed area shall not be less than 10 percent of the floor area of the room served.

4.509.2 Natural ventilation. The minimum openable area to the outdoors shall be 5 percent of the floor area being ventilated.

SECTION 17. Section 5.202 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 5.202

DEFINITIONS

(Reserved)

SECTION 18. Section 5.203 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 5.203 PERFORMANCE APPROACH

5.203.1 Energy performance. When using an Alternative Calculation Method approved by the California Energy Commission, calculate each nonresidential building's TDV energy and CO₂ emissions and compare it to the standard or "budget" building.

5.203.1.1 Energy efficiency - 15 percent above Title 24, Part 6. Exceed *California Energy Code* requirements, based on the 2008 *Energy Efficiency*

Standards, by 15 percent. Field verify and document the measures and calculations

used to reach the desired level of efficiency following the requirements specified in the Title 24 Reference Appendices.

SECTION 19. Section 5.204 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 5.204

PRESCRIPTIVE APPROACH

(Reserved)

SECTION 20. Section 5.205 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 5.205 BUILDING ENVELOPE

5.205.1 Radiant roof barriers. Radiant roof barrier shall be installed in all new buildings. The radiant barrier must be tested according to ASTM C-1371-98 or ASTM E 408-71(2002) and must be certified by the Department of Consumer Affairs.

SECTION 21. Section 5.206 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 5.206

AIR SEALING PACKAGE

(Reserved)

SECTION 22. Section 5.207 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 5.207

HVAC DESIGN, EQUIPMENT AND INSTALLATION

(Reserved)

SECTION 23. Section 5.208 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 5.208

**WATER HEATING DESIGN,
EQUIPMENT AND INSTALLATION**

5.208.1 Tank type water heater efficiency. The Energy Factor (EF) for a gas-fired storage water heater shall be higher than .60.

5.208.2 Tankless water heater efficiency. The Energy Factor (EF) for a gas-fired tankless water heater shall be .80 or higher.

SECTION 24. Section 5.209 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 5.209

LIGHTING

(Reserved)

SECTION 25. Section 5.210 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

SECTION 5.210

APPLIANCES

(Reserved)

SECTION 26. Section 5.211 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 5.211

RENEWABLE ENERGY

5.211.4 Prewiring for future solar. Install conduit from the building roof or eave to a location within the building identified as suitable for future installation of a charge controller (regulator) and inverter.

5.211.4.1 Off-grid prewiring for future solar. If battery storage is anticipated, conduit should run to a location within the building that is stable, weather-proof, insulated against very hot and very cold weather and isolated from occupied spaces.

SECTION 27. Effective Date. This ordinance shall become effective and be in full force and effect thirty days after the passage hereof.

SECTION 28. Severability. If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid by a court of competent jurisdiction, that invalidity shall not affect other provisions or applications of this Ordinance that can be given effect without the invalid provision of application, and to this end the provisions of this Ordinance are severable.

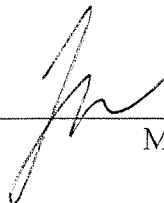
Passed by vote of the Council of the City of Glendale on the 7th day of

June, 2011.

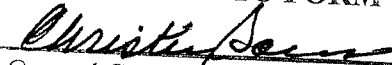
ATTEST:


City Clerk

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)
CITY OF GLENDALE) SS.


Mayor

APPROVED AS TO FORM


General Counsel - Public Works

Date: 6-2-11

I, ARDASHES KASSAKHIAN, City Clerk of the City of Glendale, certify that the foregoing Ordinance No. 5736 was passed by the Council of the City of

Glendale, California, at a regular meeting held on the 7th day of
June, 2011, and that the same was passed by the following vote:

Ayes: Manoukian, Najarian, Weaver, Friedman

Noes: None

Abstain: None

Absent: Quintero


City Clerk

RESOLUTION NO. 11-108

**A RESOLUTION OF THE COUNCIL OF THE CITY OF GLENDALE, ADOPTING
LEGISLATIVE FINDINGS SUPPORTING AMENDMENTS AND CHANGES TO THE
CALIFORNIA STATE BUILDING STANDARDS CODE AS CONTAINED IN THE
GLENDALE BUILDING AND SAFETY CODE, 2011.**

WHEREAS, on November 9, 2010, the City Council of the City of Glendale, passed Ordinance No. 5714, thereby adopting the 2010 edition of the California Green Building Standards Code as Volume IX of the Glendale Building and Safety Code, 2011.; and

WHEREAS, the City Council of the City of Glendale, intends to make modifications and changes to the 2010 edition of the California Green Building Standards Code.; and

WHEREAS, the California Health and Safety Code Sections 17958, 17958.5 and 17958.7 require the governing body of a city, before making any modifications or changes to the California Building Standards Code, to make express findings that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions.; and

WHEREAS, the City Council of the City of Glendale finds that a departure from the California Building Standards Code is reasonably necessary due to local climatic, geological or topographical conditions.

NOW THEREFORE the City Council of the City of Glendale, California, does hereby resolve as follows:

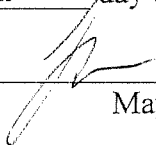
SECTION 1. Legislative Findings. Modifications and changes in Volume IX of the Glendale Building and Safety Code, 2011, are required in order to provide specific and greater protections to the public health, safety and welfare than are afforded by the California Building Standards Code due to local climatic, geological and topographic conditions. The legislative findings for such modifications and changes are made pursuant to Sections 17958.5 and 17958.7

of the California Health and Safety Code as set forth in the reports of the Director of Community Development dated April 19, 2011 and June 7, 2011. Such findings are entitled "Volume IX, Green Building Standards, Glendale Building and Safety Code, 2011, Analysis of Amendments to the California Code of Regulations" attached hereto as "Exhibit 1" and by this reference incorporated herein.

SECTION 2. This Resolution shall become effective on the same date as Ordinance No. 5736, which amends Part 11 of the California Building Standards Code, as Volume IX of the Glendale Building and Safety Code, 2011.

SECTION 3. The City Clerk is hereby authorized and directed to transmit a certified copy of this Resolution to the California Building Standards Commission of the State of California.

Passed by the Council of the City of Glendale on the 7th day of June, 2011.



Mayor

ATTEST:

By: 

City Clerk

STATE OF CALIFORNIA)
) SS
COUNTY OF LOS ANGELES)

I, ARDASHES KASSAKHIAN, City Clerk of the City of Glendale, certify that the foregoing Resolution No. 11-108 was adopted by the City Council of Glendale, California, at a regular meeting held on the 7th day of June, 2011 and that same was adopted by the following vote:

Ayes: Manoukian, Weaver, Friedman
Noes: Najarian
Abstain: None
Absent: Quintero

By: 

City Clerk

APPROVED AS TO FORM



General Counsel - Public Works

Date: 6-8-11

VOLUME IX
GREEN BUILDING STANDARDS
GLENDALE BUILDING AND SAFETY CODE, 2011
(Analysis of amendments to the California Code of Regulation)

Introduction

On November 9, 2010, the City Council of the City of Glendale adopted Ordinance No. 5714. Said ordinance adopted the California Building Standards Code as the Glendale Building and Safety Code, 2011, and incorporated amendments thereto pursuant to Health and Safety Code Sections 17958, 17958.5 and 17958.7. The Glendale Building and Safety Code, 2011 took effect on January 1, 2011.

Ordinance No. 5714 adopts the 2010 California Green Building Standards Code (*CALGreen*) without amendments as Volume IX of the Glendale Building and Safety Code, 2011.

On March 15, 2011, the City Council identified twelve (12) additional sustainable construction measures by which the *CALGreen* standards should be expanded in Volume IX of the Glendale Building and Safety Code, 2011. On April 19, 2011, the City Council introduced an ordinance to amend the *CALGreen* standards contained within Volume IX. Such amended standards shall not become effective or operative for any reason until the finding and the modification or change has been filed with the California Building Standards Commission. In accordance with Health and Safety Code Section 17958.7, each of the supplemental provisions has been individually identified and found to be reasonably necessary on the basis of a local climatic, geological or topographical condition as follows:

Volume IX
Green Building Standards

Section 1.

Section 202 DEFINITIONS.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

Under the existing definition of Low-Rise Residential Building, measures in the California Green Building Standards Code would not be applicable to new residential buildings and structures four stories and greater. This amendment would extend the applicability of the mandatory green building standards to residential buildings and structures over 3-stories in height and less than 6-stories. All other definitions in Section 202 shall remain unchanged.

(Justification: Climatic and Topographic - See justification I and J in the attached Key to Justifications.)

Reasonable necessity: Residential buildings and structures over 3-stories in height are subject to the same local climatic and topographical effects as residential building that are 3-stories and less in height. The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. Such local conditions also contribute to a regional shortage of potable water during the dry season. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Reduced winter temperatures result in increased energy demand for heating compared to energy demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. The dry, arid climate also results in increased consumption of potable water, especially during the summer. The local availability of captured rain water is limited, which increases Glendale's necessity to rely upon imported water or water extracted from ground water well sources.

Section 2.

Section 301.1 Scope.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment clarifies the scope of the green building standards. (Justification: Administrative, Climatic and Topographical - See justification A, I and J in the attached Key to Justifications)

Reasonable necessity: This amendment provides administrative clarification of the application of Green Building Standards. The clarification is necessary to ensure proper application of residential Green Building Standards to residential buildings and structures over 3-stories in height and less than 6-stories in height, consistent with a new definition of Low-Rise Residential Building. Residential buildings and structures over 3-stories in height are subject to the same local climatic and topographical effects as residential building that are 3-stories and less in height. The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. Such local conditions also contribute to a regional shortage of potable water during the dry season. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Reduced winter temperatures result in increased energy demand for heating compared to energy demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. The dry, arid climate also results in increased consumption of potable water, especially during the summer. The local availability of captured rain water is limited, which increases Glendale's necessity to rely upon imported water or water extracted from ground water well sources.

Section 3.

Section 301.2 Applicability.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment establishes the applicability of the green building standards to residential buildings and structures over 3-stories in height. Since larger buildings generally consume more resources during construction and during their service life, this amendment also establishes a threshold for single family dwellings with a total floor area greater than 5,000 square feet, above which residential buildings will be held to a higher environmental standard.

(Justification: Administrative, Climatic and Topographical - See justification A, I and J in the attached Key to Justifications)

Reasonable necessity: This amendment provides administrative clarification of the application of Green Building Standards to Low-rise residential buildings and Non-low-rise residential buildings. Furthermore, local climatic and topographical conditions generally have a greater environmental impact on larger structures, including single family dwellings larger than 5,000 square feet, due to the greater consumption of resources during construction and during the service life of such buildings. Construction, maintenance and operation of larger structures, including single family dwellings larger than 5,000 square feet, demands more energy and water. The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. Such local conditions also contribute to a regional shortage of potable water during the dry season. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season.

Reduced winter temperatures result in increased energy demand for heating compared to energy demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. The dry, arid climate also results in increased consumption of potable water, especially during the summer. The local availability of captured rain water is limited, which increases Glendale's necessity to rely upon imported water or water extracted from ground water well sources.

Section 4.

Section 4.106.4 Water permeable surfaces.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment reduces water runoff from exposed paved areas associated with residential development, and encourages natural percolation and on-site water retention which provides many environmental benefits.

(Justification: Climatic - See justification I in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to frequent local water shortages. Deficiencies in captured rain water result in reliance upon imported water and extraction of ground water from local wells. Providing permeable paved surfaces reduces water runoff and augments natural percolation and on-site water retention, including ground water recharge.

Section 5.

This amendment reserves Section 4.202 DEFINITIONS for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 6.

Section 4.203 PERFORMANCE APPROACH.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment will provide additional energy conservation features that will result in a net reduction in the amount of energy consumed (both electricity and natural gas).

(Justification: Climatic and Topographical - See justification I and J in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Reduced winter temperatures result in increased energy demand for heating compared to energy demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. The dry, arid climate also results in increased consumption of potable water, especially during the summer. This amendment will reduce the amount of energy (both electricity and natural gas) used by buildings during periods of atypically warm or atypically cold temperatures.

Section 7.

This amendment reserves Section 4.204 PRESCRIPTIVE APPROACH for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 8.

Section 4.205 BUILDING ENVELOPE.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment further reduces radiant heat loss through the roof using a low-cost reflective material; improves the insulating efficiency of the roof/ceiling construction.

(Justification: Climatic and Topographic - See justification I and J in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. This amendment will reduce the amount of energy used to cool buildings, by reducing the solar heat gain that is experienced from solar radiation through a building's roof. Reduction in solar radiation through the roof will decrease the electrical demand needed to cool buildings, even during periods of severe thermal inversion when ambient temperatures are atypically high.

Section 9.

This amendment reserves Section 4.206 AIR SEALING PACKAGE for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 10.

Section 4.207 HVAC DESIGN, EQUIPMENT AND INSTALLATION.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment ensures that all new buildings that employ a gas-fired space heating or AC-cooling equipment use a high-efficiency appliance.

(Justification: Climatic - See justification I in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Reduced winter temperatures result in increased energy demand for heating compared to energy demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. This amendment will reduce the energy required to heat and cool buildings, especially during periods of extremely warm and extremely cold temperatures, by requiring gas-fired space heating or AC-cooling equipment to be high-efficiency appliances.

Section 11.

Section 4.208 WATER HEATING DESIGN, EQUIPMENT AND INSTALLATION.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment ensures that all new buildings that employ a gas-fired tankless or storage water heater use a high-efficiency appliance.

(Justification: Climatic - See justification I in the attached Key to Justifications)

Reasonable necessity: Regional cold winter temperatures are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically cold during the winter, especially at the base of foothills such as the Verdugo Mountains. Reduced winter temperatures result in increased energy demand for heating water compared to energy demand in temperate climates. Decreased ambient temperatures require more energy to heat municipal water due to the increased temperature differential. This amendment will reduce the energy required to heat water, especially during periods of extremely cold temperatures, by requiring gas-fired water heating equipment to be high-efficiency appliances.

Section 12.

This amendment reserves Section 4.209 LIGHTING for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 13.

This amendment reserves Section 4.210 APPLIANCES for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 14.

Section 4.211 RENEWABLE ENERGY.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment ensures that any future desire to add solar photovoltaic panels to a building is planned in the design of the building.

(Justification: Climatic and Topographic - See justification I and J in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Reduced winter temperatures result in increased energy demand for heating compared to energy

demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. This amendment will facilitate installation of solar photovoltaic panels on buildings. Installation of solar photovoltaic panels reduces electrical energy demand from the municipal electrical grid, especially during the summer when the local climate can experience extremely hot temperatures due to thermal inversion and trapped hot air.

Section 15.

Section 4.509 NATURAL LIGHT AND VENTILATION.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment increases the available natural ventilation and fresh air circulation. Larger openable windows and doors also enable the occupants to rely upon artificial interior lights less, thereby saving energy each day.

(Justification: Climatic and Topographic - See justification I and J in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm during the summer.

Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. This amendment will reduce electrical consumption by increasing the available natural light, ventilation and fresh air circulation from openable windows. Increased natural ventilation will reduce the energy required for mechanical ventilation systems. Additionally, larger openable doors and windows will provide increased interior ambient light, enabling building occupants to resort to artificial light sources later in the day.

Section 16.

This amendment reserves Section 5.202 DEFINITIONS for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 17.

Section 5.203 PERFORMANCE APPROACH.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment will provide additional energy conservation features that will result in a net reduction in the amount of energy consumed (both electricity and natural gas).

(Justification: Climatic and Topographical - See justification I and J in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Reduced winter temperatures result in increased energy demand for heating compared to energy demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. The dry, arid climate also results in increased consumption of potable water, especially during the summer. This amendment will reduce the amount of energy (both electricity and natural gas) used by buildings during periods of atypically warm or atypically cold temperatures.

Section 18.

This amendment reserves Section 5.204 PRESCRIPTIVE APPROACH for future use.
(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 19.

Section 5.205 BUILDING ENVELOPE.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment further reduces radiant heat loss through the roof using a low-cost reflective material; improves the insulating efficiency of the roof/ceiling construction.

(Justification: Climatic and Topographic - See justification I and J in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. This amendment will reduce the amount of energy used to cool buildings, by reducing the solar heat gain that is experienced from solar radiation through a building's roof. Reduction in solar radiation through the roof will decrease the electrical demand needed to cool buildings, even during periods of severe thermal inversion when ambient temperatures are atypically high.

Section 20.

This amendment reserves Section 5.206 AIR SEALING PACKAGE for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 21.

This amendment reserves Section 5.207 HVAC DESIGN, EQUIPMENT AND INSTALLATION for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 22.

Section 5.208 WATER HEATING DESIGN, EQUIPMENT AND INSTALLATION.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment ensures that all new buildings that employ a gas-fired tankless or storage water heater use a high-efficiency appliance.

(Justification: Climatic - See justification I in the attached Key to Justifications)

Reasonable necessity: Regional cold winter temperatures are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically cold during the winter, especially at the base of foothills such as the Verdugo Mountains. Reduced winter temperatures result in increased energy demand for heating water compared to energy demand in temperate climates. Decreased ambient temperatures require more energy to heat municipal water due to the increased temperature differential. This amendment will reduce the energy required to heat water, especially during periods of extremely cold temperatures, by requiring gas-fired water heating equipment to be high-efficiency appliances.

Section 23.

This amendment reserves Section 5.209 LIGHTING for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 24.

This amendment reserves Section 5.210 APPLIANCE for future use.

(Justification: Administrative - See justification A in the attached Key to Justifications)

Section 25.

Section 5.211 RENEWABLE ENERGY.

This amendment is new to Volume IX of the 2011 Glendale Building and Safety Code.

This amendment ensures that any future desire to add solar photovoltaic panels to a building is planned in the design of the building.

(Justification: Climatic and Topographic - See justification I and J in the attached Key to Justifications)

Reasonable necessity: The seasonal hot, dry summer weather combined with the arid climate throughout the Los Angeles Basin region, contribute to excessive energy demand to support cooling loads. These conditions are exacerbated by the thermal inversion of trapped air caused by the topographical effects of mountainous terrain that surrounds Glendale and extends into the San Fernando and San Gabriel Valleys. During periods of severe thermal inversion, trapped air becomes atypically warm or cold, depending on the season. Reduced winter temperatures result in increased energy demand for heating compared to energy demand in temperate climates. Elevated summer temperatures result in increased energy demand for cooling compared to temperate climates. This amendment will facilitate installation of solar photovoltaic panels on buildings. Installation of solar photovoltaic panels reduces electrical energy demand from the municipal electrical grid, especially during the summer when the local climate can experience extremely hot temperatures due to thermal inversion and trapped hot air.

Key to Justifications for Amendments to Title 24 of the California Code of Regulations

- A. This amendment is reasonably necessary for administrative clarification, and does not modify a California Building Standard pursuant to California Health and Safety Code Sections 17958, 17958.5 and 17958.7. This amendment establishes administrative standards for the effective enforcement of building standards throughout the City of Glendale.
- B. This amendment is reasonably necessary on the basis of a local geologic condition. The City is subject to earthquake hazards caused by its location on the Sierra Madre fault near the base of the San Gabriel Mountains. Said fault is the eastward extension of the same fault upon which the 1971 San Fernando earthquake originated. Other faults which potentially could cause seismic activity in the City include the Verdugo fault located near the southwest edge of the Verdugo Mountains and its branches to the east, the Sycamore Canyon fault, the Scholl Canyon fault and the Eagle Rock and San Rafael faults. The York Boulevard fault is also important in that it is a western extension of the Raymond Hill fault for which there is considerable evidence for recent geologic activity. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes earthquake faults within and through the jurisdictional limits of the City, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.
- C. This amendment is reasonably necessary on the basis of a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the city. The hot, dry weather in combination with Santa Ana winds frequently results in wildland fires in the thousands of acres of brush-covered slopes in the Verdugo and San Rafael Hills, Chevy Chase Hills, and Repetto Hills area of the City. These areas extend from the City's boundary on the east to the Angeles National Forest in the north and the Verdugo Mountains at the Burbank boundary to the west. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from the California Building Standards Code is required.
- D. Glendale topography includes significant hillsides with narrow and winding access, which makes timely response by fire suppression vehicles difficult. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The modifications and additions to the California Building Standards Code are reasonably necessary to combat the hazards brought about by local climatic conditions. Glendale has a desert weather pattern with monsoon type rain followed by long periods of hot, dry weather. The heavy rains tend to oversaturate the soil for a short time period during the year, having a detrimental effect on in-ground structures affected by varying moisture conditions. The City is situated on the alluvial flood plains of the Arroyo Verdugo Wash, Sycamore, Verdugo and Scholl Canyons and the Verdugo and San Gabriel Mountain drainages which have an extensive history of slope failures causing serious floods and mud slides especially when a heavy rainy season occurs after a severe brush fire. New constructions or additions in said areas must be

regulated to assure that hillside slides will not be exacerbated, and if possible, will be improved.

- E. This amendment is reasonably necessary for administrative clarification, which does not modify a California Building Standard pursuant to California Health and Safety Code Sections 17958, 17958.5 and 17958.7. This amendment establishes administrative standards for the effective enforcement of grading standards throughout the City of Glendale.
- F. This amendment is reasonably necessary on the basis of a local geologic condition. The City of Glendale is subject to earthquake hazards caused by its location on the Sierra Madre fault near the base of the San Gabriel Mountains. Said fault is the eastward extension of the same fault upon which the 1971 San Fernando earthquake originated. Other faults which potentially could cause seismic activity in the City include the Verdugo fault located near the southwest edge of the Verdugo Mountains and its branches to the east, the Sycamore Canyon fault, the Scholl Canyon fault and the Eagle Rock and San Rafael faults. The York Boulevard fault is also important in that it is a western extension of the Raymond Hill fault for which there is considerable evidence for recent geologic activity. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. This amendment establishes grading standards that are intended to improve the performance of graded sites that may be subjected to seismic movement, including both vertical and lateral ground surface acceleration. Thus, because the City is within a seismic area which includes earthquake faults within and through the jurisdictional limits of the City, the modifications and changes cited herein are necessary to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.
- G. This amendment is reasonably necessary on the basis of a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards as hot, dry weather in combination with Santa Ana winds frequently result in wildland fires in the thousands of acres of brush-covered slopes in the Verdugo and San Rafael Hills, Chevy Chase Hills and Repetto Hills areas of the city, which can rapidly denude natural vegetation. The City of Glendale is also subjected to heavy seasonal rains, which are generally more intense than most regions in California. The City's orientation within the Verdugo Mountains results in a concentration of rainfall during the fall and winter seasons, which often result in severe ground and slope saturation. The City is situated on the alluvial flood plains of the Arroyo Verdugo Wash, Sycamore, Verdugo and Scholl Canyons and the Verdugo and San Gabriel Mountain drainages which have an extensive history of slope failures causing serious floods and mud slides especially when a heavy rainy season occurs after a severe brush fire. New construction and additions in said areas must be regulated to assure that hillside slides will not be exacerbated, and if possible, will be improved.
- H. This amendment is reasonably necessary on the basis of a local topographic condition. The City of Glendale is situated in an area of significant hillside terrain, which includes areas that are very steep and prone to both surficial and deep-seated slope failures. The topography of portions of the City of Glendale include steep, continuous slopes that are several hundred feet in height, and extend across multiple parcels including privately

EXHIBIT 1

owned property as well as public right-of-way and publicly owned open space. The topography in many areas is too steep to support significant vegetation, and is prone to erosion during seasonal heavy rains. Other portions of Glendale include lower elevation topography that is located in close proximity to natural waterways which result in high water table conditions. Such topography is typically associated with liquefaction-prone property, and many such regions have been identified on the state's Seismic Hazard Maps as candidates for potential liquefaction activity.

- I. This amendment is reasonably necessary on the basis of a local climatic condition, which makes amendment of Green Building Standards reasonably necessary pursuant to Health and Safety Code (HSC) 17958.5. The seasonal hot, dry weather during the summer combined with arid conditions throughout the Los Angeles Basin region (including regional drought conditions), contribute to excessive energy demand to support cooling loads. Such conditions also contribute to a regional shortage of potable water supply. Similarly, periods of extremely cold weather during the fall and winter seasons result in significant heat loss in and around buildings.
- J. This amendment is reasonably necessary on the basis of a local topographic condition, which makes amendment of Green Building Standards reasonably necessary pursuant to Health and Safety Code (HSC) 17958.5. The mountainous terrain that surrounds the Los Angeles Basin region contributes to the thermal inversion of trapped air. Such air becomes atypically warm or cold, depending on the season, thereby significantly increasing energy and water consumption. Furthermore, the thermal inversion traps all forms of air pollution, especially exhaust from hydrocarbon combustion (such as vehicle exhaust), and creates unhealthful respiratory conditions on a frequent basis.

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



February 15, 2011

Stuart D. Tom, Building Official
Community Planning Dept., Building & Safety Division
City of Glendale
633 E. Broadway, Rm. 101
Glendale, CA 90245-3813

Dear Mr. Tom:


This letter is to acknowledge receipt on November 22, 2010 of the City of Glendale submittal pertaining to Ordinance No. 5714 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code Section 17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,


Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings



CITY OF GLENDALE, CALIFORNIA
COMMUNITY PLANNING DEPARTMENT
BUILDING AND SAFETY DIVISION

633 E. BROADWAY, RM 101
GLENDALE, CA 91206
(818) 548-3200, (818) 548-3215 FAX
www.ci.glendale.ca.us

November 18, 2010

Mr. David Walls, Executive Director
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

***** Certified Mail *****

Subject: Building and Safety Code of the City of Glendale, 2011
Analysis of Amendments to the California Code of Regulation

Dear Mr. Walls,

Attached hereto, please find a complete analysis of all local amendments to the California Building Standards Code, adopted by the Council of the City of Glendale, California. Amendments to building standards are justified on the basis of one or more local climatic, geologic and/or topographic conditions as specifically and individually identified in the attached analysis and as further specified in the attached matrix. Each amendment has been individually and expressly justified as identified in said matrix. A key to justifications referenced in the matrix can be found in the last three pages of the attachment.

Should you have any questions, please do not hesitate to contact me at (818) 548-3214

Sincerely,

Stuart D. Tom, P.E., CBO
Building Official

Attachments

cc: Ardashes Kassakhian, City Clerk
Christina Sansone, General Counsel/PW
Jeffrey Halpert, Fire Marshal
File Copy

2010 NOV 22 P 1:37
CITY OF GLENDALE
BUILDING STANDARDS COMMISSION



ORDINANCE NO. 5714

AN ORDINANCE ADOPTING THE 2010 CALIFORNIA BUILDING CODE AS VOLUME IA, THE 2010 CALIFORNIA RESIDENTIAL CODE AS VOLUME IB, THE 2010 CALIFORNIA PLUMBING CODE AS VOLUME II, THE 2010 CALIFORNIA MECHANICAL CODE AS VOLUME III, THE 2010 CALIFORNIA ELECTRICAL CODE AS VOLUME IV, THE 1997 UNIFORM HOUSING CODE AS VOLUME V, THE 2010 CALIFORNIA FIRE CODE AS VOLUME VI, THE GLENDALE SECURITY CODE AS VOLUME VII AND THE GLENDALE COMMERCIAL, INDUSTRIAL PROPERTY MAINTENANCE CODE AS VOLUME VIII AND THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE AS VOLUME IX ALL OF WHICH COMPRISE THE BUILDING AND SAFETY CODE OF THE CITY OF GLENDALE, 2011.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF GLENDALE:

SECTION INT-1. The City of Glendale hereby adopts a Building and Safety Code of the City of Glendale, 2011, hereinafter designated as the "Glendale Building and Safety Code, 2011."

SECTION INT-2. Volume IA. Building Standards.

The City of Glendale hereby adopts the 2010 California Building Code as Volume IA of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume IA of the Glendale Building and Safety Code, 2011, shall be as published in the California Building Code Volumes 1 and 2, 2010 edition, and as copyrighted in 2009 by the International Code Council, Inc. and the California Building Standards Commission, California Code of Regulations, Title 24, Part 2, Volumes 1 and 2, including all of its tables, indices, appendices, addenda and footnotes. Volume 1A of the Glendale Building and Safety Code, 2011, shall include Appendix Chapter A1 of the California Existing Building Code, 2010 edition, published and copyrighted in 2009 by the International Code Council, Inc. and the California Building Standards Commission, California Code of Regulations, Title 24, Part 10, regarding seismic strengthening

provisions for unreinforced masonry bearing wall buildings, which shall be incorporated into Chapter 58 of Volume IA of the Glendale Building and Safety Code, 2011, as if fully set forth herein. Said California Building Code and California Existing Building Code are hereby referred to and by such references are incorporated herein as if fully set forth.

SECTION INT-3. Volume IB. Residential Standards.

The City of Glendale hereby adopts the 2010 California Residential Code as Volume IB of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume IB of the Glendale Building and Safety Code, 2011, shall be as published in the California Residential Code, 2010 edition, and as copyrighted in 2009 by the International Code Council, Inc. and the California Building Standards Commission, California Code of Regulations, Title 24, Part 2.5, including all of its tables, indices, appendices, addenda and footnotes. Said California Residential Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION INT-4. Volume II. Plumbing Standards.

The City of Glendale hereby adopts the 2010 California Plumbing Code as Volume II of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume II of the Glendale Building and Safety Code, 2011, shall be as published in the California Plumbing Code 2010 edition, and as copyrighted in 2009 by the International Association of Plumbing and Mechanical Officials and the California Building Standards Commission, California Code of Regulations, Title 24, Part 5, including all of its tables, indices, appendices, addenda and footnotes. Said California Plumbing Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION INT-5. Volume III. Mechanical Standards.

The City of Glendale hereby adopts the 2010 California Mechanical Code as Volume III of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume III of the Glendale Building and Safety Code, 2011, shall be as published in the California Mechanical Code, 2010 edition, and as copyrighted in 2009 by the International Association of Plumbing and Mechanical Officials and the California Building Standards Commission, California Code of Regulations, Title 24, Part 4, including all of its tables, indices, appendices, addenda and footnotes. Said California Mechanical Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION INT-6. Volume IV. Electrical Standards.

The City of Glendale hereby adopts the 2010 California Electrical Code as Volume IV of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume IV of the Glendale Building and Safety Code, 2011, shall be as published in the California Electrical Code, 2010 edition, and as copyrighted in 2008 to the National Fire Protection Association, Inc. and the California Building Standards Commission, California Code of Regulations, Title 24, Part 3, including all of its tables, indices, appendices, addenda, annexes and footnotes. Said California Electrical Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION INT-7. Volume V. Housing Standards.

The City of Glendale hereby re-adopts the 1997 Uniform Housing Code as Volume V of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume V of the Glendale Building and Safety Code, 2011, shall be as

published in the Uniform Housing Code, 1997 edition, and as copyrighted in 1997 by the International Conference of Building Officials, including all of its tables, indices, appendices, addenda and footnotes. Said Uniform Housing Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION INT-8. Volume VI. Fire Safety Standards.

The City of Glendale hereby adopts the 2010 California Fire Code as Volume VI of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume VI of the Glendale Building and Safety Code, 2011, shall be as published in the California Fire Code, 2010 edition, and as copyrighted in 2009 by the International Code Council, Inc. and the California Building Standards Commission, California Code of Regulations, Title 24, Part 9, including all of its tables, indices, appendices, addenda and footnotes. Said California Fire Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION INT-9. Volume VII. Security Standards.

Except as otherwise provided herein or as later amended, Volume VII of the Glendale Building and Safety Code, 2011 is hereby re-adopted as the Glendale Security Code, as previously adopted by Ordinance 5581.

SECTION INT-10. Volume VIII. Commercial and Industrial Property Maintenance Standards.

Except as otherwise provided herein or as later amended, Volume VIII of the Glendale Building and Safety Code, 2011 is hereby re-adopted as the Commercial and Industrial Property Maintenance Code, as previously adopted by Ordinance 5581.

SECTION INT-11. Volume IX. Green Building Standards.

The City of Glendale hereby adopts the 2010 California Green Building Standards Code as Volume IX of the Glendale Building and Safety Code, 2011. Except as otherwise provided herein, or as later amended, Volume IX of the Glendale Building and Safety Code, 2011, shall be as published in the California Green Building Standards Code, 2010 edition, and as copyrighted in 2009 by the California Building Standards Commission, California Code of Regulations, Title 24, Part 11, including all of its tables, indices, appendices, addenda and footnotes. Said California Green Building Standards Code is hereby referred to and by such reference is incorporated herein as if fully set forth. The voluntary provisions in Appendix Chapter A-4 and Chapter A-5 are not adopted as mandatory compliance features at this time.

SECTION INT-12. Effect of Code on Past Actions and Obligations. The adoption of the Glendale Building and Safety Code, 2011, does not affect any civil lawsuit instituted or filed or prosecutions for ordinance violations committed on or prior to the effective date of said Code, does not waive any fee or penalty due and unpaid prior to the effective date of said Code, and does not affect the validity of any bond or cash deposit posted, filed or deposited pursuant to the requirements of any ordinance.

SECTION INT-13. References to Prior Code. Unless superseded and expressly repealed, references in City forms, documents and regulations to the chapters and sections of the former Glendale Building and Safety Code, 2008, shall be construed to apply to the corresponding provisions contained within the Glendale Building and Safety Code, 2011. Ordinance No. 5581 of the City of Glendale and all other ordinances or parts of ordinances in conflict herewith are hereby superseded and expressly repealed.

SECTION INT-14. Penalty. Unless otherwise provided in said Code, any person violating any provision of the Glendale Building and Safety Code, 2011, shall be guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine not exceeding one thousand dollars, or by imprisonment in the City jail or the County jail of the County of Los Angeles for a term not exceeding six months, or both such fine and imprisonment.

SECTION INT-15. Severability. If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid by a court of competent jurisdiction, that invalidity shall not affect other provisions or applications of this Ordinance that can be given effect without the invalid provision of application, and to this end the provisions of this Ordinance are severable.

SECTION INT-16. Effective Date, Exceptions. This ordinance becomes effective and shall be in full force on January 1, 2011; provided, however that where complete plans for buildings have been filed and are pending for building permits prior to the effective date of this Ordinance, permits may be issued, and the applicant may proceed with the construction in strict compliance with former Building and Safety Code, 2008, provided however physical construction is started within one hundred eighty (180) days from the date of issuance of the permit and continued to completion according to said former Building and Safety Code, 2008.

SECTION INT-17. Four-Fifths Vote. The City Clerk shall certify to the passage of this Ordinance by a vote of four-fifths (4/5^{ths}) of the members of the Council of the City of Glendale and shall cause a summary of the same to be published once in the official newspaper of said City.

VOLUME IA. BUILDING STANDARDS

SECTION IA-1. Volume IA of the Glendale Building and Safety Code, 2011, is amended as hereinafter provided.

SECTION IA- 2. Chapter 1 Division II Section 101.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exception: Detached one-and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the California Residential Code as adopted and amended as Volume IB of the Glendale Building and Safety Code.

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted.

SECTION IA-3. Chapter 1 Division II Section 104.10.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

104.10.1 Fire code official concurrence. For those cases which may affect fire or life safety, the building official shall obtain the concurrence of the fire code official.

SECTION IA-4. Chapter 1 Division II Section 104.11.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

104.11.5 Fire code official concurrence. For those cases which may affect fire or life safety, the building official shall obtain the concurrence of the fire code official.

SECTION IA-5. Chapter 1 Division II Section 105.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

105.1 Permit Required. Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert, or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit. Parking lots shall not be paved, improved, striped, or restriped unless a separate permit for each parking lot has first been obtained from the building official.

Exception: A separate permit shall not be required to pave, improve, stripe, or restripe a parking lot when such work is included in the scope of another project for which a building permit has been issued and when the design of such parking lot was included in the plan check review of such project.

SECTION IA-6. Chapter 1 Division II Section 105.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11 m²).
2. Fences, pilasters, free-standing and retaining walls not over 18 inches (457 mm) high measured from the lowest adjacent grade to the top of fence, wall or pilaster, unless supporting a surcharge or impounding Class I, II, or IIIA liquids.
3. Oil derricks.
4. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18925 L) and the ratio of height to diameter or width does not exceed 2:1.
5. Platforms, sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an accessible route.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Temporary motion picture, television and theater stage sets and scenery.
8. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (18925 L) and are installed entirely above ground.
9. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
10. Swings and other playground equipment accessory to detached one-and two-family dwellings.

11. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support of Group R-3 and U occupancies.
12. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
13. Temporary frames (also known as "story poles") which are intended to temporarily show the outlines of proposed buildings as required by Title 30 of the Glendale Municipal Code, 1995 for a period of time not to exceed 1-year.

Electrical:

Repairs and maintenance: Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.

Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.

Temporary testing systems: A *permit* shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (5 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with the new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

105.2.1 Emergency repairs. Where equipment replacements and repairs must be performed in an emergency situation, the *permit* application shall be submitted within the next working business day to the *building official*.

105.2.2 Repairs. Application or notice to the *building official* is not required for ordinary repairs to structures, replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required *means of egress*, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include *addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.*

105.2.3 Public service agencies. A *permit* shall not be required for the installation, *alteration* or repair of generation, transmission, distribution or metering or other related equipment that is under the ownership and control of public service agencies by established right.

SECTION IA-7. Chapter 1 Division II Section 105.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read to read as follows:

105.3 Application for permit. To obtain a permit, the applicant shall first file an application therefore in writing on a form furnished by the department of building safety for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.

2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended.
4. Be accompanied by construction documents and other information as required in Section 107.
5. State the valuation of the proposed work.
6. Be signed by the applicant, or the applicant's authorized agent.
7. Give such other data and information as required by the building official.
8. Pay plan review and permit fees as required by this Chapter 1 Division II.

Section IA-8. Chapter 1 Division II Section 105.3.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned one-year after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days. The extension shall be requested in writing and justifiable cause demonstrated. *[OSHDP 1, 2, & 4] Time limitation shall be in accordance with Title 24, Part I, Chapter 7, Section 7-129.*

Exception: Such application was extended by Ordinance No. 5681 through December 31, 2011.

In granting any extension the building official may require compliance with any new regulation. In order to renew action on an application after expiration, the applicant shall

resubmit plans and pay a new plan review fee. The new plan review fee shall be one half the amount required for a new plan review, provided no changes have been made in the original plans and specifications for such work, and provided further that such abandonment has not exceeded one year. In order to renew action on an expired application the applicant shall comply with all applicable new regulations.

SECTION IA-9. Chapter 1 Division II Section 105.3.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

105.3.3 Plan review fees. When submittal documents are required by Chapter 1 Division II, Section 105.3, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. The plan review fees specified in this section are separate fees from the permit fees specified in Chapter 1 Division, Section 109.2 and are in addition to the permit fees. When submittal documents are incomplete or changed so as to require additional plan review, or when the project involves deferred submittal items as defined in Chapter 1 Division II, Section 107.3.4.2, an additional plan review fee shall be charged at a rate specified by resolution.

SECTION IA-10. Chapter 1 Division II Section 105.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Work shall be considered suspended or abandoned if the building official determines that substantial work has not been performed within the time specified above. Substantial work shall be construed to mean:

1. Measurable work such as, but not limited to, the addition of footings, structural members, flooring, wall covering, etc.
2. The work mentioned in subsection 1 of this section 105.5 above must constitute 20% of the value of the work for which the permit was issued in any 180 day period for Group R, Division 3 occupancies and 10% for all other occupancies.

Before such work can be recommenced, a new permit shall be first obtained to do so, and the fee therefore shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after expiration, the permittee shall pay a new permit fee and may be required to comply with all applicable new regulations at the time of issuance. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

SECTION IA-11. Chapter 1 Division II Section 105.8 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

105.8 Responsibility of permittee. Building permits shall be presumed by the city to incorporate all of the work that the applicant, the applicant's agent, employees and/or contractors shall carry out. Said proposed work shall be in accordance with the approved plans and with all requirements of this code and any other laws or regulations applicable thereto. No city approval shall relieve or exonerate any person from the responsibility of

complying with the provisions of this code nor shall any vested rights be created for any work performed in violation of this code.

SECTION IA-12. Chapter 1 Division II Section 109.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

Section 109.4 Work commencing before permit issuance. Any person who commences any work on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to a fee in addition to the normally established permit fee, equal to 100% of such normally established permit fee, or as otherwise determined by the building official.

SECTION IA-13. Chapter 1 Division II Section 110.3.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

110.3.5 Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly, a shear assembly or a sound transmission control assembly.

SECTION IA-14. Chapter 1 Division II Section 110.3.9.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

110.3.9.1 Structural observation. For structural observation, see Section 1707.

SECTION IA-15. Chapter 1 Division II Section 113 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

SECTION 113

BUILDING AND FIRE BOARD OF APPEALS

113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the *building official* or the fire code official relative to the application and interpretation of all volumes of this code, there shall be and is hereby created a joint building and fire board of appeals. The board appointment and composition shall be in accordance with the governing body. The building official or the fire code official shall be an ex-officio member of said board but shall have no vote on any matter before the board. The building official shall act as the secretary to said board. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the building official and fire code official.

113.2 Limitations on authority. The building and fire board of appeals shall have no authority relative to interpretation of the administrative provisions of this code nor shall the board be empowered to waive requirements of this code.

113.3 Qualifications. The board of appeals shall consist of members who are qualified pursuant to Section 2.56.040 of the Glendale Municipal Code, 1995.

113.3 Procedure for Appeals to the Building and Fire Board of Appeals.

113.3.1 Fee. A non-refundable fee for an appeal shall be established or modified by resolution of the City Council. The building official, fire code official, or both

shall review said fee no more than once annually and may, with approval of the City Manager, recommend changes to the City Council.

113.3.2 Application. With the advice of the building official and fire code official, the Building and Fire Board of Appeals shall approve the form of application for appeals. Such application shall include but not be limited to the following items: address and description of the property involved; statement of all facts upon which the applicant relies; any plans, sketches, or reports to support the applicant's case or as may be required by the board; the specific section or decision relevant to the applicant's appeal; a detailed account to the appellant's position and justification showing how his or her position meets or exceeds Code.

113.3.3 Acceptance and application. Upon filing of a complete application and payment of the fee, the application shall be reviewed by the building official or fire code official, or both, for completeness and conformance with this Code and the board's adopted policies and procedures. Applications which are found to be complete and compliant shall be accepted and submitted for the board's consideration.

113.3.4 Public hearing. Upon acceptance of an application, the building official shall set the matter for public hearing and notice shall be given as required by the policies and procedures of the board. The essential facts found at such hearing shall be recorded in the minutes of the board. A copy of the findings and decision of the board shall be mailed to the applicant at the address given in the application, with duplicate copies to the building official and the fire code official.

113.3.5 Appeal to City Council. Any person, including any city official, aggrieved by the decision of the building and fire board of appeals, may appeal to the City Council with the time and in the manner provided in chapter 2.88 of the Glendale Municipal Code, 1995.

SECTION IA-16. Chapter 1 Division II Section 114.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

114.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish, occupy, or maintain any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code. Maintenance of a building or structure which was unlawful at the time it was constructed and which would be unlawful under this Code if constructed after the effective date of such Code, shall constitute a continuing violation of such Code.

SECTION IA-17. Chapter 1 Division II Section 114.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

114.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the *approved construction documents* or directive of the *building official*, or of a *permit* or certificate issued under the provisions of this code, shall be deemed guilty of a misdemeanor and shall be punishable by a fine of not more than \$1,000.00 or by imprisonment for a term of not more than 6 months, or by both such fine and imprisonment. Such penalty and imprisonment shall not preclude the imposition of

any other administrative or judicial civil or criminal remedies under state, federal or local laws.

SECTION IA-18. Chapter 1 Division II Section 115.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

115.1 Authority. Whenever the *building official* finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or other laws or ordinances of this jurisdiction or dangerous or unsafe, the *building official* is authorized to issue a stop work order.

SECTION IA-19. Chapter 1 Division II Section 115.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

115.3 Unlawful continuance. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of a misdemeanor.

SECTION IA-20. Chapter 1 Division II Section 116.6 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

116.6 Non-Compliance. Upon failure to comply with the order within the time specified herein, and if no appeal has been properly and timely filed, the building official shall file in the office of the County Recorder a certificate describing the property and certifying (i) that the building is an unsafe building and (ii) that the owner has been notified.

Whenever the corrections ordered shall thereafter have been completed or the building demolished so that it no longer exists as an unsafe building on the property described in the certificate, the building official shall file a new certificate with the County Recorder

certifying that the building has been demolished or all required corrections have been made so that the building is no longer unsafe, whichever is appropriate.

SECTION IA-21. Appendix Chapter 1 Section 116.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

116.7 Vacated Buildings. Any unsafe building ordered vacated in accordance with this section shall not be reoccupied until the unsafe conditions have been eliminated. Each such vacated building shall be locked and otherwise secured against entry and the building official shall post thereon a placard stating: "DO NOT ENTER, UNSAFE TO OCCUPY, CITY OF GLENDALE." Such notice shall remain posted until the required repairs, demolition or removal are completed. Such notice shall not be removed without written permission of the building official and no person shall enter the building except for the purpose of making the required repairs or of demolishing the building.

SECTION IA-22. Chapter 1 Division II Section 117 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 117

REFUSE AND RECYCLING STORAGE

117.1 General. All new buildings except those in group R, Division 3 and Group U occupancies shall have a refuse storage room or a refuse storage area on the premises as specified in Section 117.2.

117.2 REFUSE STORAGE ROOM/AREA.

117.2.1 Where Required. A refuse storage room/area is not required for Groups A, B, E, F, H, I, M, and S Occupancies less than 1,000 square feet (93 m²) .

117.2.2 Room Requirements. Wheel stops shall be provided along three sides of the refuse storage room (excluding the door opening) at a minimum of seven (7) inches (178 mm) from each wall. The minimum vertical clearance shall be seven (7) feet (2135 mm) and no plumbing or electrical installations shall protrude into the refuse storage room within six (6) feet (1830 mm) from the floor. All doors, openings, gates and/or paths of access shall be of sufficient size to provide twelve (12) inches (305 mm) of clearance on both sides of the refuse bin at the narrowest opening. Angled entrances will be approved only by the building official under the provisions of Chapter 1 Division II Section 104.11 of Volume IA of the Glendale Building and Safety Code, 2011. Hinged doors shall be equipped with a device to hold them open while moving the bin in and out of the storage area. All floors and paths of access shall be level.

117.2.3 Trash Chute Location. Notwithstanding any other provision of this Code, a minimum of eighteen (18) inches (458 mm) from any wall of the enclosure to the edge of any chute shall be required.

117.2.4 Refuse Storage Rooms/Areas - Out of Public View. Refuse storage rooms or areas may not be positioned in any manner where they may be viewed from a public way other than an alley. Refuse storage areas or rooms may not be located on walls or facing public ways other than alleys unless they are screened from public view in a manner satisfactory to the building official.

117.2.5 Maintenance of Refuse Storage Rooms/Area Enclosures.

Notwithstanding any other provision of this Code, all refuse storage rooms and

refuse storage area enclosures shall be maintained to the satisfaction of the Integrated Waste Administrator for the life of the structure.

TABLE 117-A

OPTION 1				
OCCUPANCY	MINIMUM REFUSE STORAGE ROOM DEPTH REQUIRED*	MINIMUM DOOR SIZE AND CORRIDOR WIDTH		BIN SIZE
		DOORS	CORRIDOR WIDTH	
A,B ,E,F,H,I,M,S [1,000 sq. ft. (93m ²) and above]	8' 9" (2667 mm)	2 @ 42" ea. (1067 mm)	6' 6" 1981(mm)	3 Yd (2.29m ³)
R-1 and R-2 3 to 4 units	8' 9" (2667 mm)	2 @ 32" ea. (813 mm)	5' 8" (1727 mm)	1 Yd (0.765m ³)
R-1 and R-2 5 to 8 units	8' 9" (2667 mm)	2 @ 36" ea. (914 mm)	5' 8" (1727 mm)	2 Yd (1.53m ³)
R-1 and R-2 9 to 36 units	8' 9" (2667 mm)	2 @ 42" ea. (1067 mm)	6' 6" (1981 mm)	3 Yd (2.29m ³)
R-1and R-2 Over 36 units	See Note 1			
OPTION 2				
OCCUPANCY	MINIMUM REFUSE STORAGE ROOM DEPTH REQUIRED*	MINIMUM DOOR SIZE AND CORRIDOR WIDTH		BIN SIZE
		DOORS	CORRIDOR WIDTH	
A,B,E,F,H,I,M,S [1,000 sq. ft. (93m ²) and above]	6' 6" (1981 mm)	2 @ 55" ea.** (1397 mm)	8' 9" (2667 mm)	3 Yd (2.29m ³)
R-1 and R-2 3 to 4 units	5' 8" (1727 mm)	2 @ 55" ea.** (1397 mm)	8' 9" (2667 mm)	1 Yd (0.765m ³)
R-1 and R-2 5 to 8 units	5' 8" (1727 mm)	2 @ 55" ea.** (1397 mm)	8' 9" (2667 mm)	2 Yd (1.53m ³)
R-1 and R-2 9 to 36 units	6' 6" (1981 mm)	2 @ 55" ea.** (1397 mm)	8' 9" (2667 mm)	3 Yd (2.29m ³)
R-1and R-2 Over 36 units	See Note 1			

* The installation of jams/hinges will affect these dimensions. See Section 117.2.2.

**** A roll-up type door or sliding doors may be substituted as long as the corridor width remains 8' 9" (2667 mm) and all other requirements are met.**

NOTE 1: The owner/agent of multiple dwellings in excess of thirty-six (36) units shall provide sufficient refuse storage area to accommodate collection in a manner and frequency satisfactory to the Integrated Waste Administrator.

117.3 RECYCLED MATERIALS STORAGE AREAS REQUIRED. All new buildings shall have a storage area for the collection of recyclable materials that is a minimum 5 feet (1524mm) x 7 feet (2128mm) with two (2) standard 32-inch (813mm) minimum width doors. Roll-up type doors or sliding doors may be substituted as long as a 64-inch (1626mm) wide opening is provided and a 64-inch (1626mm) wide corridor is provided as required for access. Such "Recycle Area" shall be maintained to the satisfaction of the Integrated Waste Administrator for the life of the building. For additional requirements see Section 117.2.

Exception: Group R, Division 3 and U Occupancies.

All new buildings shall submit a "Recycling Plan". The Plan shall include the following elements:

- (a) Site plan of the proposed area shall identify location(s) of the recycling enclosure(s) relative to the facility or complex.
- (b) Identify all materials to be collected and recycled.
- (c) The developer shall notify in writing the Integrated Waste Management Section of the Public Works Division of the recycling enclosure location, and if necessary, provide a gate opener or key to gain access to the Recycled Materials Storage Area.

(d) The developer shall provide a plan describing what measures will be taken to educate and promote the City's recycling programs to the new owner(s), manager, and tenants of the building. Recycling rules and regulations shall be included as a part of all rental, lease, or purchase agreements. This plan shall be submitted to Integrated Waste Management Section prior to issuance of Certificate of Occupancy.

SECTION IA-23. Chapter 1 Division II Section 118 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 118

CONSTRUCTION TOILET FACILITIES

118 Temporary Construction Toilets. Toilet Facilities Required. No person shall commence or proceed with the erection, construction, alteration, repair, raising, adding to, removal, or demolition of any building or structure unless adequate, suitable, sanitary toilet facilities under the control of such person are provided for the use of any person employed or working upon such building or structure. Such toilet facilities shall be located upon or within a reasonable distance of the lot, premises, or site upon which such work is being done. In no case shall the line of travel to any facility exceed five hundred feet (500') (153 M). Toilets may not be placed on the public way.

118.1 Toilet Standards. Every toilet shall be of water flush type and shall be connected to a public sewer or private sewage disposal system built in accordance with the provisions of the Plumbing Code. All toilet structures shall be self-closing; the toilet floor shall be smooth, and screened ventilation shall be provided for the toilet compartment. Where workmen are employed during night hours, the toilet building shall

be provided with artificial light. In lieu of flush water closets approved chemical toilets may be provided. Toilets may not be located within 10' (3054 mm) of a property line.

SECTION IA-24. Chapter 1 Division II Section 119 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 119

ON SITE CONSTRUCTION TRASH AND DEBRIS CONTROL

119 On Site Construction Trash and Debris Control Facilities Required.

No person shall commence or proceed with erection, construction, alteration, repair, raising, adding to, removal, or demolition of any building or structure unless adequate, suitable on site trash and debris control facilities under the control of such person are provided for the use of any person employed or working upon such building or structure. On site trash and debris control shall consist of at least a roll off 523 ft³ (15m³) bin. The container shall be emptied often enough so that no storage of trash is outside the bin. The bin shall be removed from the site after the building has passed final inspection or within thirty (30) days of the expiration of the building permit.

Exception: Additions, less than 900 ft² (84m²), and alterations to Group R, Division 3 occupancies and Group U occupancies need not provide a roll off bin but must store trash and debris in the rear yard in quantities less than 10 ft (3m) wide by 10 ft (3m) long by 4 ft (1.2m) high. All trash and debris whether or not in containers shall be kept 3 ft (912mm) from adjacent property lines.

SECTION IA-25. Chapter 1 Division II Section 120 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 120

DISASTER REPAIR AND RECONSTRUCTION

120.1 Intent. This section establishes standards and regulations for the expeditious repair and reconstruction of structures damaged as a result of a disaster for which a local emergency has been declared by the City Council. This section does not allow exemptions from the Building, Fire, Electrical, Mechanical, Plumbing, other Codes, or standards.

120.2 Applications of Provisions.

120.2.1 The provisions of this section are applicable following each disaster when a local emergency has been declared by the City Council to all buildings and structures of all occupancies regulated by the City of Glendale. The Council may extend the provisions as necessary.

120.2.2 When approved by the building official, the requirements of this section may be waived in favor of repair recommendations included in an engineering evaluation as defined in Section 119.3.

120.3 DEFINITIONS. For the purpose of this section 120, the following definitions apply:

120.3.1 "ARCHITECT" means an individual licensed by the State of California to practice architecture as defined in the State of California Business and Professions Code.

120.3.2 "CIVIL ENGINEER" means an individual registered by the State of

California to practice architecture as defined in the State of California Business and Professions Code.

120.3.3 “CURRENT CODE” means the edition of the California Building Code, published by the International Conference of Building Officials, as adopted by the City of Glendale as the Glendale Building and Safety Code, as amended. The edition of said Glendale Building and Safety Code to be applied shall be that edition in effect at the time of the declaration of a local emergency by the City Council.

120.3.4 “ENGINEERING EVALUATION” means an evaluation of a damaged building or structure, or suspected damaged building or structure, performed under the direction of a structural engineer, civil engineer, or architect retained by the owner of the building or structure. Engineering evaluations shall, at a minimum, contain recommendations for repair with appropriate opinion of construction cost for those repairs.

120.3.5 “REPLACEMENT VALUE” means the dollar value, as determined by the new building official, of replacing the damaged structure with a new structure of the same size, construction material and occupancy on the same site.

120.3.6 “STRUCTURAL ENGINEER” means an individual registered by the State of California to practice civil engineering and to use the title structural engineer as defined in the State of California Business and Professions Code.

120.3.7 “VALUE OF REPAIR” means the dollar value, as determined by the building official, of making the necessary repairs to the damaged building.

120.4 Repair Criteria.

120.4.1 Abatement of Dangerous Buildings shall be in accordance with the provisions of Chapter 1 Division II, Section 116.

120.4.2 Building and structures of all occupancies which have been damaged as a result of a disaster, except as otherwise noted, shall be repaired in accordance with the following criteria:

1. When the estimated value of repair does not exceed ten percent (10%) of the replacement value of the structure, the damaged portion(s) may be restored to their pre-disaster condition.

Exception: When the damaged elements include suspended ceiling systems, the ceiling system shall be repaired and all bracing required by current code shall be installed.

2. When the estimated value of repair is greater than ten percent (10%) but less than fifty percent (50%) of the replacement value of the structure, the damaged elements, as well as all critical ties, supported elements and supporting elements associated with the damaged elements, shall be repaired and/or brought into conformance with the structural requirements of the current Code.
3. When the estimated value of repair is fifty percent (50%) or more of the replacement value of the structure, the entire structure shall be brought into conformance with the structural requirements of the current Code.
4. In Group R, Division 3 occupancies, the repair value of damaged chimneys shall be excluded from the computation of percentage of

replacement value. Damaged chimneys shall be repaired in accordance with *Chapter I Division II*, Section 120.5.

120.5 Repair Criteria for Chimneys.

120.5.1 All damaged chimneys must be repaired or reconstructed to comply with the requirements of Section 2113 of the Glendale Building and Safety Code, 2011. Damaged portions of chimneys shall be removed in accordance with the following criteria:

1. When the damaged portion of the chimney is located between the roof line and the top of the chimney, the damaged portion shall be removed to the roof line provided the roof and ceiling anchorage are in sound condition.
2. For a single-story structure in which the damaged portion of the chimney is below the roof line or the damaged portion extends from above the roof line to below the roof line, the chimney shall be removed to the top of the fire box.
3. For a multi-story structure, the damaged portion of the chimney shall be removed from the top to a floor line where sound anchorage is found.
4. In any structure where the firebox has been damaged, the entire chimney and firebox shall be removed to the foundation. If this foundation is in sound condition, the firebox and chimney may be reconstructed using the existing foundation. If the foundation has been damaged, the foundation shall be removed and replaced.

120.5.2 Where existing conditions preclude the installation of all anchorage required by Section 2113 of the current Code, alternate systems may be used in accordance with the alternate methods and materials provisions of the current Code when approved by the building official. Such alternate systems shall be designed and detailed by a structural engineer, civil engineer, or architect.

120.6 Repair Criteria for Unreinforced Masonry Buildings and Structures.

120.6.1 All damaged buildings as defined in Section 5803 of Volume IA of the Glendale Building and Safety Code shall be repaired and strengthened in accordance with provisions of *Chapter 1 Division II*, Section 120.4.

120.6.2 Unreinforced masonry buildings damaged less than 50% shall be repaired in accordance with Chapter 58 of Volume IA of this Code.

SECTION IA-26. Chapter 1 Division II Section 121 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 121

SANDBLASTING

121.1. Sandblasting: Definition. As used in this article, unless the context expressly indicates otherwise, "sandblasting" shall mean the use of air, steam or water containing sand to clean, grind, or cut hard surfaces.

121.2. Dry Sandblasting. Dry sandblasting is prohibited unless authorized by special permission from the building official endorsed upon a permit. Permission for dry sandblasting may be granted only when it is not possible to employ wet sandblasting. When dry sandblasting is permitted, the building official may impose

such reasonable and related conditions as he or she may deem necessary for the protection of the public and the adjacent property.

121.3. Use of Canvas. Sandblasting operations shall, at all times, be separated from all adjacent property by canvas or other suitable barrier to prevent the splashing or blowing of water and/or sand thereupon.

121.4. Stoppage of Work. The building official may order the immediate stoppage of sandblasting for failure to comply with any provision of this chapter. Failure of any person to comply immediately with such order shall constitute a misdemeanor.

SECTION IA-27. Section 403.3 of Volume IA, of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

[F] 403.3 Combination automatic sprinkler / standpipe system. Buildings and structures shall be equipped throughout with a combination *automatic sprinkler/standpipe system* in accordance with Section 903.3.1.1 and a secondary water supply in accordance with Section 903.3.5.2, and the policies of the fire code official. Standpipes shall provide for a looped redundant sprinkler supply at each floor level. *A sprinkler water-flow alarm-initiating device and a control valve with a supervisory signal-initiating device shall be provided at each of the lateral connections to the risers for each floor.*

SECTION IA-28. Section 503.2 of Volume 1A of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

503.2 Construction on contiguous lots under same ownership or occupancy. In those cases where lots, or portions of lots, contiguous to one another are owned or occupied by the same person, such lots, or portions of lots, may be considered one lot for the purpose

of enforcing Sections 503, 602.1, Table 602 and Table 503 of this Code. In such event, the owner of said lots shall be required to execute and record a covenant and agreement with the City to the satisfaction of the building official on a form approved by the City Attorney. Said covenant and agreement shall, among other things, provide that said lots or portions of lots shall remain as one parcel and the owner thereof shall not sell, transfer or in any way sever any portion of said lots or portions of lots independently from the remaining lots or portions of lots until or unless released from the covenant and agreement by the city. Said covenant and agreement shall be recorded by the Los Angeles County Recorder, shall run with the lot or portions of lots, and shall be binding upon the owner, future owners, encumbrancers, successors, heirs, and assigns. An easement or dedication for public right of way purposes shall not constitute ownership or occupancy under this Section 503.2. The building official is hereby authorized to execute such covenants and agreements on behalf of the City.

SECTION IA-29. Section 504.2 of Volume IA of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. Increases are permitted in addition to the area increase in accordance with Section 506.2. *These increases are not permitted in addition to the area increase in accordance with Section 506.3.* For Group R-2 buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503

for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18 288 mm) or four stories, respectively, *these increases are not permitted in addition to the area increase in accordance with Section 506.3.*

Exceptions:

1. Fire areas with an occupancy in Group I-2 of Type IIB, III, IV or V construction.
2. Fire areas with an occupancy in Group H-1, H-2, H-3 or H-5.
3. Fire-resistance rating substitution in accordance with Table 601, Note e.
4. *[SFM] Fire areas with an occupancy in Group L.*
5. *[SFM] Fire areas with an occupancy in licensed Group I-1 and R-4.*

SECTION IA-30. Section 506.3 of Volume IA of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

506.3 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the building area limitation in Table 503 is permitted to be increased by an additional 200 percent ($I_s = 2$) for buildings with more than one story above grade plane and an additional 300 percent ($I_s = 3$) for buildings with no more than one story above grade plane. *These increases are not permitted in addition to the height and story increases in accordance with Section 504.2.*

Exception: The building area limitation increases shall not be permitted for the following conditions:

1. The automatic sprinkler system increase shall not apply to buildings with an occupancy in Use Group H-1.
2. The automatic sprinkler system increase shall not apply to the floor area of an occupancy in Use Group H-2 or H-3. For buildings containing such occupancies, the allowable building area shall be determined in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.
3. Fire-resistance rating substitution in accordance with Table 601, Note d.
4. *[SFM] The automatic sprinkler system increase shall not apply to buildings with an occupancy in Group L.*

SECTION IA-31. Section 903.2 of Volume IA of the Glendale Building and Safety Code, 2011, regarding where automatic sprinkler systems are required, is hereby amended to read as follows:

[F] 903.2 Where required. *Approved automatic sprinkler systems* in new and existing buildings and structures shall be provided in accordance with this section.

Exceptions:

1. When approved by the fire code official, spaces or areas in telecommunications buildings used exclusively for telecommunication equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm system and are separated from the remainder of the building by fire barriers consisting of not less than one-hour fire-resistance-rated walls and two-hour fire-resistance-rated floor/ceiling assemblies.
2. *Automatic fire sprinkler protection for fixed guideway transit systems shall comply with Section 903.2.17.*

903.2.1 New occupancies. An automatic sprinkler system shall be installed in all new occupancies.

Exceptions:

1. Group B, Group F Divisions 1 and 2, and Group M occupancies, less than 1000 total square feet (92.9 m²).
2. Group S Division 1 occupancies not classified as motor vehicle repair garages less than 1000 total square feet (92.9 m²).
3. Group S Division 2 occupancies not classified as parking garages less than 1000 total square feet (92.9 m²).

903.2.2 Existing occupancies. An automatic sprinkler system shall be installed and maintained in all existing occupancies as follows:

1. Throughout existing and new sections of any existing building whenever total additions result in an increase of more than 1000 square feet (92.9 m²) in the total floor area, including mezzanines or additional stories, regardless of ownership. Additions shall be cumulative with each application for building permit within the previous five years.

Exception: Group R, Division 3 occupancies.

2. Throughout existing and new sections of any existing building whenever alterations exceed fifty percent (50%) of the replacement value, as determined by the building official. Alteration values shall be cumulative with each application for a building permit within the previous five years.

Exception: Expenditures for tenant improvements, maintenance and repairs such as interior and exterior painting, carpeting, interior window coverings, drapes, movable partitions, surface re-roofing or plumbing, mechanical and electrical repairs.

3. Throughout existing and new sections of any existing building for which there is an occupancy classification change to a more hazardous use, as determined by the fire code official or building official.
4. Throughout any existing Group R Division 2 occupancy being subdivided to condominium units.
5. Existing high-rise buildings. "Existing high-rise buildings," as defined in Volume VI, Section 202 of the Glendale Building and Safety Code, 2011, shall have an automatic sprinkler system installed and operational throughout within forty-eight (48) months of the effective date of Ordinance 4850 (20 July 1989).
6. Existing mid-rise buildings. Existing mid-rise buildings shall have an automatic fire sprinkler system installed and operational throughout within sixty (60) months of the effective date of Ordinance 4850 (20 July 1989). For the purpose of this section, "mid-rise building" means any building six or more stories in height or more than 55 feet (16,764 mm) in height and not defined as a high-rise building. Measurement shall be from the underside of the roof or floor above the topmost occupiable space to the lowest fire apparatus access road level or building access, whichever is lower.

Exception: Open parking garages.

7. Existing low-rise building. Existing low-rise buildings shall have an automatic fire sprinkler system installed and operational throughout within seventy-two (72) months of the effective date of Ordinance 4850 (20 July 1989). For the purpose of this section, "low-rise building" means any building four or more stories in height but less than 55 feet (16,764 mm) in height from the lowest level of Fire Department access. Measurement shall be from the underside of the roof or floor above the topmost occupiable space to the lowest fire apparatus access road level or building access, whichever is lower.

Exception: Open parking garages.

903.2.2.1 Notification, recordation, enforcement, and standards.

Notification, recordation, enforcement and standards addressed in this Section 903.2.2.1 shall be enforced by the fire code official to ensure compliance with Section 903.2.2, subsections 6, 7, and 8.

1. **Notification.** Whenever, pursuant to Section 903.2.2, the fire code official determines by inspection that a building does not conform to the minimum requirements of Section 903.2.2, subsection 6, 7 or 8, the fire code official shall prepare a fire/life safety notice in writing that the building be repaired and modified to conform to the minimum requirements of said Sections. The notice shall specify in what manner the building fails to meet the minimum requirements of Section 903.2.2, subsection 6, 7, or 8. It shall direct that plans be submitted, and that necessary permits be obtained not later than one (1) year after the service of the notice, and that necessary corrections be completed not later than three (3) years thereafter for work required under Section 903.2.2, subsection 6, not later than four (4) years thereafter for work required under Section 903.2.2, subsection 7 and not later than five (5) years thereafter for work required under Section 903.2.2, subsection 8. The notice shall be transmitted by the fire code official for enforcement purposes. The fire code official shall serve the notice either personally or by certified or registered mail upon the owner as shown on the last equalized assessment roll and upon the person, if any, in real or apparent charge or control of the building. The provisions of this Section 903.2.2.1 are not intended to prevent the fire code official from also making a determination or issuing an order regarding failure to comply with Section 903.2.2, subsection 6, 7, or 8.

2. **Recordation.** At the time that the fire code official serves the aforementioned order or notice, the fire code official shall file with the Office of the County Recorder, a certificate stating that the subject building does not meet the minimum fire safety requirements of Section 903.2.2, subsection 6, 7, or 8 and that the owner thereof has been so notified.

After all necessary corrective work has been performed; the fire code official shall file with the Office of the County Recorder, a certificate terminating the status of the subject building as nonconforming to the minimum fire safety requirements of Section 903.2.2, subsection 6, 7, or 8.

3. Enforcement. If the owner or other person in charge and control of the subject building fails to comply with the aforementioned order or notice within the time periods set forth in Section 903.2.2.1, such person is guilty of a misdemeanor punishable by a fine or by imprisonment or both. A person is guilty of a separate offense each day during which he or she commits, continues or permits a violation of Section 903.2.2, subsection 6, 7, or 8. The fire code official shall also order that the building owner or other person in charge and control post a notice of non-conformance. The notice shall be placed in a conspicuous area of the building until all required corrective work has been completed.

SECTION IA-32. Section 903.3.1.2 of Volume IA of the Glendale Building and Safety Code, 2011, regarding NFPA 13R fire sprinkler systems in Group R buildings, is hereby repealed.

SECTION IA-33. Section 903.3.5.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

[F] 903.3.5.2 Secondary water supply. A secondary on-site water supply shall be provided for high-rise buildings *and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access* in Seismic Design category C, D, E or F as determined by this code. The secondary water supply shall *have a usable capacity of not less than the fire pump's listed flow at 100% for a duration of not less than 30 minutes, the hydraulically calculated sprinkler demand plus 100 gpm for the inside hose stream allowance, for a duration of not less than 30 minutes or as determined by the sprinkler system design occupancy hazard classification*

in accordance with NFPA 13, *whichever is greater. The Class I standpipe system demand shall not be required to be included in the secondary on-site water supply calculations. In no case shall the secondary on-site water supply be less than 15,000 gallons.*

Exception: Existing buildings.

SECTION IA-34. Section 906.8 of Volume IA of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

[F] 906.8 Cabinets. Cabinets used to house portable fire extinguishers shall not be locked.

Exceptions:

1. Where portable fire extinguishers subject to malicious use or damage are provided with a means of ready access.
2. In Group I-3 occupancies and in mental health areas in Group I-2 occupancies, access to portable fire extinguishers shall be permitted to be locked or to be located in staff locations provided the staff has keys.

In new construction, fire extinguishers shall be located within recessed or semi-recessed cabinets. In existing occupancies, fire extinguishers shall be located within recessed or semi-recessed cabinets when required by the *fire code official*. All fire extinguishers in cabinets shall be mounted so that their tops are no more than 48 inches (1219 mm) above the floor with the brackets or hangers included with the fire extinguishers.

Exception: Surface mounted cabinets may be installed when construction material prohibits recessing the cabinet.

SECTION IA-35. Section 906.9.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

[F] 906.9.1 Extinguishers weighing 40 pound or less. Portable fire extinguishers having a gross weight not exceeding 40 pounds (18kg) shall be installed so that their tops are not more than 48 inches (1219 mm) above the floor.

SECTION IA-36. Section 907.6.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

[F] 907.6.5 Monitoring. Fire alarm systems required by this chapter or the *California Fire Code* shall be monitored by an approved supervising station in accordance with NFPA 72 and this section. Supervisory stations shall be listed by Underwriters Laboratories, Inc.

Exception: Monitoring by a supervisory station is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.11.
2. Group I-3 occupancies *shall be monitored in accordance with Section 907.2.6.3.*
3. *Automatic sprinkler systems* in one-and two-family dwellings.

SECTION IA-37. Section 907.7.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

[F] 907.7.2 Certification and record of completion. The permittee shall provide, at no cost to the fire department, the record of completion in accordance with NFPA 72 verifying that the system has been installed and tested in accordance with *the approved* plans and specifications and a copy of a serially numbered certificate issued to the permittee by Underwriters Laboratories, Inc., certifying the system. The certificate

shall include the following: the name and address of the protected property; type of system(s); components used; area covered; name and address of alarm service company; and the issue and expiration dates. Certification shall be required for all new systems and for all existing systems that produce three or more false alarm activations within a 12-month period, or systems which become unreliable due to dilapidation or deterioration. The copy of the certificate shall be presented to the fire code official prior to the final inspection. A certificate shall be maintained for the life of the system. The permittee, certificate holder, and maintenance contract holder shall be one and the same unless otherwise approved by the fire code official.

Exception: Group R Division 3 occupancies.

907.7.2.1 Maintenance Contract. The permittee shall provide, at no cost to the fire department, a copy of a minimum one year maintenance contract, signed by the building owner, prior to final inspection. The permittee, certificate holder, and maintenance contract holder shall be one and the same unless otherwise approved by the fire code official. A maintenance contract shall be maintained for the life of the system.

Exception: Group R Division 3 occupancies

907.7.2.2 Identification of certificated system. All existing and new fire alarm systems for which an Underwriters Laboratories, Inc., certificate has been required shall be identified with an approved, tamper resistant label on the fire alarm control panel. The label shall, at a minimum, show the following: certificate number; the name, address, phone number, and California contractor's license number of the certificate holder; the date of certification and date certification

expires; a warning statement to the effect that no person or entity is authorized to perform any work on the system without the express permission and authorization of the contractor/certificate holder, and that the certification may be voided in such case; a statement that a valid certificate is required to be in effect for the life of the system, and; a statement that by order of the fire code official the label shall not be removed.

SECTION IA-38 Section 911.1.4 of Volume IA of the Glendale Building and Safety Code, 2011, referencing Section 508.1.4 of the California Fire Code, is hereby amended to read as follows:

[F] 911.1.4 Layout approval. Location, access, and a layout of the fire command center and all features required by this section to be contained therein shall be submitted for approval prior to installation. HVAC service to maintain the room in a cool and ventilated condition shall be provided. The access door to the room shall be four (4) feet (1219 mm) wide. The door hardware shall be approved by the fire code official. The room shall be completely finished, with finished flooring surface, painted walls, and painted gypsum board ceiling.

SECTION IA-39 Section 911.1.5 of Volume IA of the Glendale Building and Safety Code, 2011, referencing Section 508.1.5 of the California Fire Code, is hereby amended to read as follows:

[F] 911.1.5 Required features. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. Emergency voice/alarm communication system control unit with printer.
2. Fire department communications system.

3. Fire detection and alarm system annunciator system incorporating a graphic annunciator with matrix, floor plans, and a site plan.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-distribution systems.
6. Fire-fighter's graphic control panel required by Section 909.16 for smoke control systems installed in the building depicting air flows in a graphic sectional view and equipment status indicator .
7. Controls for unlocking *stairway* doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump and on-site water supply status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress*, fire protection systems, fire-fighting equipment and fire department access and the location of *fire walls, fire barriers, fire partitions, smoke barriers* and smoke partitions.
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. Elevator fire recall switch in accordance with ASME A17.1.

17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.
18. *Fire command centers shall not be used for the housing of any boiler, heating unit, generator, combustible storage or similar hazardous equipment or storage.*
19. Helicopter landing facility lighting controls and status indicators.
20. Two electrical outlets on each wall connected to the emergency generator.
21. Dry erase board and markers.

SECTION IA-40. Table 1004.1.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

**TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross

Billiard/Pool Table	8/table
Assembly with fixed seats	See section 1004.7
Assembly without fixed seats	
Concentrated (chairs only-not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allows 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms-other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
Garment manufacturing	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross

TABLE 1004.1. Continued

Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m²

SECTION IA-41. TABLE 1015.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

**TABLE 1015.1
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

OCCUPANCY	MAXIMUM OCCUPANT LOAD
A, B, E ^a , F ^b , M,U	49
H-1, H-2, H-3	3
H-4, H-5, I-1, I-3, I-4, R	10
S	29

- a. Day care maximum occupant load is 10.
- b. Garment manufacturing maximum occupant load is 29.

SECTION IA-42. Section 1505.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1505.1 General. Roof assemblies shall be divided into the classes defined below. Class A and B roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the type of construction of the building. The roof-covering assembly includes the roof deck, underlayment, interlayment, insulation and covering which is assigned a roof covering classification. No wood roof covering material shall be installed. See Chapter 7A for roofing requirements in Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas).

Exceptions:

1. Skylights and sloped glazing that comply with Chapter 24 or Section 2610.
2. Penthouses shall be constructed as required in Section 1509.2.

SECTION IA-43. TABLE 1505.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

**TABLE 1505.1^a
MINIMUM ROOF COVERING CLASSIFICATION
FOR TYPES OF CONSTRUCTION**

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	B	B	B	B	B	B

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

- a. Unless otherwise required in accordance with *Chapter 7A*. For Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas).

SECTION IA-44. Section 1505.1.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1505.1.3 Roof coverings within all other areas. *The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B. No wood roof covering shall be installed.*

SECTION IA-45. Table 1507.3.7 of Volume IA of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

CLAY AND CONCRETE TILE ATTACHMENT^{a,b,c}

TABLE 1507.3.7

GENERAL—CLAY OR CONCRETE ROOF TILE			
Maximum basic wind speed (mph)	Mean roof height (feet)	Roof slope up to < 3:12	Roof slope 3:12 and over
85	0-60	Two fasteners per tile. Flat tile without vertical laps, two fasteners per tile.	Two fasteners per tile. Two fasteners on slopes of 7:12 and less for tiles with installed weight exceeding 7.5 lbs./sq. ft. having a width no greater than 16 inches.
100	0-40		
100	> 40-60	The head of all tiles shall be nailed. The nose of all eave tiles shall be fastened with approved clips. All rake tiles shall be nailed with two nails. The nose of all ridge, hip and rake tiles shall be set in a bead of roofer's mastic.	
110	0-60	The fastening system shall resist the wind forces in Section 1609.5.2 minimum 2 fasteners per tile.	
120	0-60	The fastening system shall resist the wind forces in Section 1609.5.2 minimum 2 fasteners per tile.	
130	0-60	The fastening system shall resist the wind forces in Section 1609.5.2 minimum 2 fasteners per tile.	
All	>60	The fastening system shall resist the wind forces in Section 1609.5.2 minimum 2 fasteners per tile.	
INTERLOCKING CLAY OR CONCRETE ROOF TILE WITH PROJECTING ANCHOR LUGS (Installations on solid sheathing without battens)			
Maximum basic wind speed (mph)	Mean roof height (feet)	All roof slopes	
85	0-60	Two fasteners per tile.	
100	0-40	Two fasteners per tile.	
100	> 40-60	The head of all tiles shall be nailed. The nose of all eave tiles shall be fastened with approved clips. All rake tiles shall be nailed with two nails. The nose of all ridge, hip and rake tiles shall be set in a bead of roofer's mastic.	
110	0-60	The fastening system shall resist the wind forces in Section 1609.5.2 minimum two fasteners per tile.	
120	0-60	The fastening system shall resist the wind forces in Section 1609.5.2 minimum two fasteners per tile.	
130	0-60	The fastening system shall resist the wind forces in Section 1609.5.2 minimum two fasteners per tile.	

Notes to Table 1507.3.7:

For SI : 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 pound per square foot = 4.882 kg/m².

- a. Minimum fastener size. Hot dipped galvanized ring shank or other approved corrosion-resistant nails not less than No. 11 gage with ⁵/₁₆-inch head. Fasteners shall be long enough to penetrate into the sheathing 0.75 inch or through the thickness of the sheathing, whichever is less. Attaching wire for clay and concrete tile shall not be smaller than 0.083 inch.

b. Snow areas. A minimum of two fasteners per tile are required or battens and one fastener.

c. Roof slopes greater than 24:12. The nose of all tiles shall be securely fastened.

d. Horizontal battens. Battens shall be not less than 1 inch by 2 inch nominal.

Provisions shall be made for drainage by a minimum of $\frac{1}{8}$ - inch riser at each nail or by 4-foot-long battens with at least a 0.5-inch separation between battens.

Horizontal battens are required for slopes over 7:12.

e. Perimeter fastening areas include three tile courses but not less than 36 inches from either side of hips or ridges and edges of eaves and gable rakes.

SECTION IA-46. Section 1510.7, of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

1510.7 Roof sheathing. When finish roofing material is removed to the existing space sheathing, a minimum of $\frac{3}{8}$ inch (9 mm) thick plywood sheathing shall be installed. See Chapter 7A for roof coverings permitted in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas). The new sheathing shall comply with the requirements of Section 2306.2. The sheathing shall be installed such that the edges align over rafters and individual spaced sheathing boards. The sheathing shall be attached to the existing spaced sheathing with 6d common nails at 6 inches (147 mm) on center at supported edges and 6d common nails at 12 inches (294 mm) on center at intermediate supports.

SECTION IA-47. Section 1512 of Volume IA of the Glendale Building Code, 2011, is hereby added to read as follows:

**SECTION 1512
SOLAR PHOTOVOLTAIC PANELS/MODULES**

1512.1 Solar photovoltaic panels/modules. Solar photovoltaic panels/modules installed upon a roof or as an integral part of a roof assembly shall comply with the requirements of Volume VI of this code.

1512.1.1 Structural fire-resistance. The structural frame and roof construction supporting the load imposed upon the roof by the photovoltaic panels/modules shall comply with the requirements of Table 601.

SECTION IA-48 Section 1613.6.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1613.6.1 Assumption of flexible diaphragm: Modify ASCE 7 Section 12.3.1.1 to add the exception. Diaphragms constructed of wood structural panels or untopped steel decking shall also be permitted to be idealized as flexible, provided all of the following conditions are met:

1. Toppings of concrete or similar materials are not placed over wood structural panel diaphragms except for nonstructural toppings no greater than 1 ½ inches (38 mm) thick.
2. Each line of vertical elements of the seismic-force-resisting system complies with the allowable story drift of Table 12.12-1.
3. Vertical elements of the seismic-force-resisting system are light-framed walls sheathed with wood structural panels rated for shear resistance or steel sheets.
4. Portions of wood structural panel diaphragms that cantilever beyond the vertical

elements of the lateral-force-resisting system are designed in accordance with section 2305.2.5 of the California Building Code.

Exception: For buildings two stories or less in height with diaphragms constructed of wood structural panels, the cantilevered portion may be analyzed using flexible diaphragm assumption, provided the length of the overhang does not exceed 15 percent of the distance between the lateral force resisting system adjacent to the cantilevered portion in the same direction nor one-fourth the width of the diaphragm, where the width is the dimension of the diaphragm perpendicular to the overhang.

SECTION IA-49. Section 1613.6.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1613.6.7 Minimum distance for building separation. All buildings and structures shall be separated from adjoining structures. Separations shall allow for the maximum inelastic response displacement (Δ_M). Δ_M shall be determined at critical locations with consideration for both translational and torsional displacements of the structure using equation 16-44:

$$\Delta_M = C_d \delta_{max} \quad (\text{Equation 16-44})$$

Where:

C_d = Deflection amplification factor in Table 12.2-1 of ASCE 7.

δ_{max} = Maximum displacement defined in Section 12.8.4.3 of ASCE 7.

Adjacent buildings on the same property shall be separated by a distance not less than Δ_{MT} , determined by Equation 16-45.

$$\Delta_{MT} = \sqrt{(\Delta_{M1})^2 + (\Delta_{M2})^2} \quad (\text{Equation 16-45})$$

where:

Δ_{M1}, Δ_{M2} = The maximum inelastic response displacements of the adjacent buildings in accordance with Equation 16.44.

Where a structure adjoins a property line not common to a public way, the structure shall also be set back from the property line by not less than the maximum inelastic response displacement, Δ_M , of that structure.

Exceptions:

1. Smaller separations or property line setbacks shall be permitted when justified by rational analyses.
2. Buildings and structures assigned to *Seismic Design Category A, B or C*.

SECTION IA-50. Section 1613.8 of Volume IA of the Glendale Building Code, 2011, is hereby added to read as follows:

1613.8 Suspended ceilings. Minimum design and installation standards for suspended ceilings shall be determined in accordance with the requirements of Chapter 25 of this code and this section 1613.15.

1613.8.1 Scope. This part contains special requirements for suspended ceilings and lighting systems. Provisions of Section 13.5.6 of ASCE 7 shall apply except as modified herein.

1613.8.2 General. The suspended ceilings and lighting systems shall be limited to 6 feet (1828 mm) below the structural deck unless the lateral bracing is designed by a licensed engineer or architect.

1613.8.3 Design and installation requirements.

1613.8.3.1 Bracing at discontinuity. Positive bracing to the structure shall be provided at changes in the ceiling plane elevation or at discontinuities in the ceiling grid system.

1613.8.3.2 Support for appendages. Cable trays, electrical conduits and piping shall be independently supported and independently braced from the structure.

1613.8.3.3 Sprinkler heads. All sprinkler heads (drops) except fire-resistance-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves or adaptors through the ceiling tile, in accordance with Section 13.5.6.2.2 (e) of ASCE 7 . Sprinkler heads penetrating fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall comply with Section 713 of this code.

1613.8.3.4 Perimeter members. A minimum wall angle size of at least a two inch (51 mm) horizontal leg shall be used at perimeter walls and interior full height partitions. The first ceiling tile shall maintain 3/4 inch (19 mm) clear from the finish wall surface. An equivalent alternative detail that will provide sufficient movement due to anticipated lateral building displacement may be used in lieu of the long leg angle subject to the approval of the building official.

1613.8.4 Special requirements for means of egress. Suspended ceiling assemblies located along means of egress serving an occupant load of thirty (30) or more shall comply with the following provisions:

1613.8.4.1 General. Ceiling suspension systems shall be connected and braced with vertical hangers attached directly to the structural deck along the means of egress serving an occupant load of thirty (30) or more and at lobbies accessory to Group A Occupancies. Spacing of vertical hangers shall not exceed 2 feet (610 mm) on center along the entire length of the suspended ceiling assembly located along the means of egress or at the lobby.

1613.8.4.2 Assembly device. All lay-in panels shall be secured to the suspension ceiling assembly with two hold-down clips minimum for each tile within a 4-foot (1219 mm) radius of the exit lights and exit signs.

1613.8.4.3 Emergency systems. Independent supports and braces shall be provided for light fixtures required for exit illumination. Power supply for exit illumination shall comply with the requirements of Section 1006.3 of this Code.

1613.8.4.4 Supports for appendage. Separate support from the structural deck shall be provided for all appendages such as light fixtures, air diffusers, exit signs, and similar elements.

SECTION IA-51. Section 1615 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 1615

MODIFICATIONS TO ASCE 7

1615.1 General. Chapter 12 of ASCE 7 is hereby adopted by reference and is incorporated herein as if fully set forth except as further amended as follows:

1615.1.1 Modify ASCE 7 Section 12.8.1.1, equation 12.8-5, to read as follows:

12.8.1.1 Calculation of Seismic Response Coefficient. The seismic response coefficient, C_s , shall be determined in accordance with Eq. 12.8-2.

$$C_s = \frac{S_{DS}}{(R/I)} \quad (12.8-2)$$

Where

S_{DS} = the design spectral response acceleration parameter in the short period range as determined from Section 11.4.4

R = the response modification factor in Table 12.2-1

I = the occupancy importance factor determined in accordance with Section 11.5.1

The value of C_s computed in accordance with Eq. 12.8-2 need not exceed the following:

$$C_s = \frac{S_{DI}}{T(R/I)} \quad \text{for } T \leq T_L \quad (12.8-3)$$

$$C_s = \frac{S_{DI} T_L}{T^2 \left[\frac{R}{I} \right]} \quad \text{For } T > T_L \quad (12.8-4)$$

C_s shall not be less than

$$C_s = 0.044 S_{DS} I \geq 0.01 \quad (12.8-5)$$

In addition, for structures located where S_I is equal to or greater than 0.6g, C_s shall not be less than

$$C_s = \frac{0.5 S_I}{\left[\frac{R}{I} \right]} \quad (12.8-6)$$

1615.1.2 Modify ASCE 7, Table 12.8-2 to read as follows:

**TABLE 12.8-2
VALUES OF APPROXIMATE PERIOD
PARAMETERS C_t AND x**

Structure Type	C_t	x
Moment resisting frame systems in which the frames resist 100% of the required seismic force are not enclosed or adjoined by components that are more rigid and will prevent the frames from deflecting where subjected to seismic forces.		
Steel moment-resisting frames	0.028 (0.0724) ^a	0.8
Concrete moment-resisting frames	0.016 (0.0466) ^a	0.9
Eccentrically braced steel frames and buckling restrained braced frames	0.03 (0.0731) ^a	0.75
All other structural systems	0.02 (0.0488) ^a	0.75

a. Metric equivalents are shown in parentheses.

1615.1.3 Modify ASCE 7, Section 12.2.3.1, exception 3, to read as follows:

12.2.3.1 R , C_d and Ω_0 . Values for vertical combinations. The value of the response modification coefficient, R , used for design at any story shall not exceed the lowest value of R that is used in the same direction at any story above that story. Likewise, the deflection amplification factor, C_d , and the system over strength factor, Ω_0 , used for the design at any story

shall not be less than the largest value of this factor that is used in the same direction at any story above that story.

Exceptions:

1. Rooftop structures not exceeding two stories in height and 10 percent of the total structural weight.
2. Other supported structural systems with a weight equal to or less than 10 percent of the weight of the structure.
3. Detached one- and two-family dwellings up to two stories of light-frame construction.

A two-stage equivalent lateral force procedure is permitted to be used for structures having a flexible upper portion above a rigid lower portion, provided that the design of the structure complies with the following:

- a. The stiffness of the lower portion must be at least 10 times the stiffness of the upper portion.
- b. The period of the entire structure shall not be greater than 1.1 times the period of upper portion considered as a separate structure fixed at the base.
- c. The flexible upper portion shall be designed as a separate structure using the appropriate values of R and ρ .
- d. The rigid lower portion shall be designed as a separate structure using appropriate values of R and ρ . The reactions from the upper portion shall be those determined from the analysis of the upper portion amplified by the ratio of the R/ρ

of the upper portion over R/ρ of the lower portion. This ratio shall not be less than 1.0.

1615.1.4 Modify ASCE 7 Section 12.8.7, equation 12.8-16 to read as follows:

12.8.7 P-Delta Effects. P-delta effects on story shears and moments, the resulting member forces and moments, and the story drifts induced by these effects are not required to be considered where the stability coefficient (θ) as determined by the following equation is equal to or less than 0.10:

$$\theta = \frac{P_x \Delta}{V_x h_{sx} C_d} \quad (12.8-6)$$

Where

P_x = the total vertical design load at and above level x (kip or kN); where computing P_x , no individual load factor need exceed 1.0

Δ = the design story drift as defined in Section 12.8.6 occurring simultaneously with V_x (in. or mm)

h_x = the seismic shear force acting between Levels x and $x - 1$ (kip or kN)

H_{sx} = the story height below Level x (in. or mm)

C_d = the deflection amplification factor in Table 12.2-1

The stability coefficient (θ) shall not exceed θ_{max} determined as follows:

$$\theta_{max} = \frac{0.5}{\beta C_d} < 0.25 \quad (12.8-17)$$

Where β is the ratio shear demand to shear capacity for the story between Levels x and $x-$

1. This ratio is permitted to be conservatively taken as 1.0.

Where the stability coefficient (θ) is greater than 0.10 but less than or equal to θ_{max} , the incremental factor related to P-delta effects on displacements and member forces shall be determined by rational analysis. Alternatively, it is permitted to multiply displacements and member forces by $1.0/(1 - \theta)$.

Where θ is greater than θ_{max} , the structure is potentially unstable and shall be redesigned.

Where P-delta effect is included in an automated analysis, Eq.

12.8-17 shall be satisfied, however, the value of θ computed from Eq. 12.8-16 using the results of P-delta analysis is permitted to be divided by $(1 + \theta)$ before checking Eq. 12.8-17.

1615.1.5 Modify ASCE 7 Section 12.11.2.2.3 to read as follows:

12.11.2.2.3 Wood Diaphragms. In wood diaphragms, the continuous ties shall be in addition to the diaphragm sheathing. Anchorage shall not be accomplished by use of toe nails or nails subject to withdrawal nor shall wood ledgers or framing be used in cross-grain bending or cross-grain tension. The diaphragm sheathing shall not be considered effective as providing the ties or struts required by this section.

For wood diaphragms supporting concrete or masonry walls, wood diaphragms shall comply with the following:

1. The spacing of continuous ties shall not exceed 40 feet. Added chords of diaphragms may be used to form subdiaphragms to transmit the anchorage forces to the main continuous cross-ties.
2. The maximum diaphragm shear used to determine the depth of the subdiaphragm shall not exceed 75% of the maximum diaphragm shear.

1615.1.6. Modify ASCE 7 Section 12.12.4 to read as follows:

Section 12.12.4 Deformation Compatibility for Seismic Design Category D through F. For structures assigned to Seismic Design Category D, E, or F, every structural component not included in the seismic force-resisting system in the direction under consideration shall be designed to be adequate for the gravity load effects and the seismic forces resulting from displacement to the design story drift (Δ) as determined in accordance with Section 12.8.6 (see also Section 12.12.1).

Exception: Reinforced concrete frame members not designed as part of the seismic force-resisting system shall comply with Section 21.9 of ACI 318.

Where determining the moments and shears induced in components that are not included in the seismic force-resisting system in the direction under consideration, the stiffening effects of adjoining rigid structural and nonstructural elements shall be considered and a rational value of member and restraint stiffness shall be used.

When designing the diaphragm to comply with the requirements stated above, the return walls and fins/canopies at entrances shall be considered. Seismic

compatibility with the diaphragm shall be provided by either seismically isolating the element or by attaching the element and integrating its load into the diaphragm.

SECTION IA-52. Section 1616 of Volume IA of the Glendale California Building Code, 2011, is hereby added to read as follows:

SECTION 1616

SEISMIC DESIGN PROVISIONS FOR HILLSIDE BUILDINGS

1616.1 Purpose. The purpose of this section is to establish minimum regulations for the design and construction of new buildings and additions to existing buildings when constructing such buildings on or into slopes steeper than one unit vertical in three units horizontal (33.3%). These regulations establish minimum standards for seismic force resistance to reduce the risk of injury or loss of life in the event of earthquakes.

1616.2 Scope. The provisions of this section shall apply to the design of the lateral-force-resisting system for hillside buildings at and below the base level diaphragm. The design of the lateral-force-resisting system above the base level diaphragm shall be in accordance with the provisions for seismic and wind design as required elsewhere in this division.

Exception: Non-habitable accessory buildings and decks not supporting or supported from the main building are exempt from these regulations.

1616.3 Definitions. For the purposes of this section 1615, certain terms are defined as follows:

BASE LEVEL DIAPHRAGM is the floor at, or closest to, the top of the highest level of the foundation.

DIAPHRAGM ANCHORS are assemblies that connect a diaphragm to the adjacent foundation at the uphill diaphragm edge.

DOWNHILL DIRECTION is the descending direction of the slope approximately perpendicular to the slope contours.

FOUNDATION is concrete or masonry which supports a building, including footings, stem walls, retaining walls, and grade beams.

FOUNDATION EXTENDING IN THE DOWNHILL DIRECTION is a foundation running downhill and approximately perpendicular to the uphill foundation.

HILLSIDE BUILDING FOR THE PURPOSE OF STRUCTURAL DESIGN is any building or portion thereof constructed on or into a slope steeper than one unit vertical in three units horizontal (33.3%). If only a portion of the building is supported on or into the slope, these regulations apply to the entire building.

PRIMARY ANCHORS are diaphragm anchors designed for and providing a direct connection as described in Sections 1616.5 and 1616.7.3 between the diaphragm and the uphill foundation.

SECONDARY ANCHORS are diaphragm anchors designed for and providing a redundant diaphragm to foundation connection, as described in Sections 1616.6 and 1616.7.4

UPHILL DIAPHRAGM EDGE is the edge of the diaphragm adjacent and closest to the highest ground level at the perimeter of the diaphragm.

UPHILL FOUNDATION is the foundation parallel and closest to the uphill diaphragm edge.

1616.4 Analysis and Design.

1616.4.1 General. Every hillside building within the scope of this section shall be analyzed, designed, and constructed in accordance with the provisions of this division.

When the code-prescribed wind design produces greater effects, the wind design shall govern, but detailing requirements and limitations prescribed in this and referenced sections shall be followed.

1616.4.2 Base level diaphragm-downhill direction. The following provisions shall apply to the seismic analysis and design of the connections for the base level diaphragm in the downhill direction.

1616.4.2.1 Base for lateral force design defined. For seismic forces acting in the downhill direction, the base of the building shall be the floor at or closest to the top of the highest level of the foundation.

1616.4.2.2 Base shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 5 for bearing wall and building frame systems. The total base shear shall include the forces tributary to the base level diaphragm including forces from the base level diaphragm.

1616.5 Base Shear Resistance-Primary Anchors.

1616.5.1 General. The base shear in the downhill direction shall be resisted through primary anchors from diaphragm struts provided in the base level diaphragm to the foundation.

1616.5.2 Location of primary anchors. A primary anchor and diaphragm strut shall be provided in line with each foundation extending in the downhill direction.

Primary anchors and diaphragm struts shall also be provided where interior vertical lateral-force resisting elements occur above and in contact with the base level diaphragm. The spacing of primary anchors and diaphragm struts or collectors shall in no case exceed 30 feet (9144 mm).

1616.5.3 Design of primary anchors and diaphragm struts. Primary anchors and diaphragm struts shall be designed in accordance with the requirements of Section 1616.8.

1616.5.4 Limitations. The following lateral-force-resisting elements shall not be designed to resist seismic forces below the base level diaphragm in the downhill direction:

1. Wood structural panel wall sheathing,
2. Cement plaster and lath,
3. Gypsum wallboard, and
4. Tension only braced frames.

Braced frames designed in accordance with the requirements of Section 2205.2.2 may be used to transfer forces from the primary anchors and diaphragm struts to the foundation provided lateral forces do not induce flexural stresses in any member of the frame or in the diaphragm struts.

Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1616.6 Base shear resistance-secondary anchors.

1616.6.1 General. In addition to the primary anchors required by Section 1616.5,

the base shear in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in the base level diaphragm.

Exception: Secondary anchors are not required where foundations extending in the downhill direction spaced at not more than 30 feet (9144 mm) on center extend up to and are directly connected to the base level diaphragm for at least 70% of the diaphragm depth.

1616.6.2 Secondary anchor capacity and spacing. Secondary anchors at the base level diaphragm shall be designed for a minimum force equal to the base shear, including forces tributary to the base level diaphragm, but not less than 600 pounds per lineal foot (8.76 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1219 mm) on center.

1616.6.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1616.8.

1616.7 Diaphragms Below the Base Level-Downhill Direction. The following provisions shall apply to the lateral analysis and design of the connections for all diaphragms below the base level diaphragm in the downhill direction.

1616.7.1 Diaphragm defined. Every floor level below the base level diaphragm shall be designed as a diaphragm.

1616.7.2. Design force. Each diaphragm below the base level diaphragm shall be designed for all tributary loads at that level using a minimum seismic force factor not less than the base shear coefficient.

1616.7.3 Design force resistance-primary anchors. The design force described in Section 1616.7.2 shall be resisted through primary anchors from diaphragm struts provided in each diaphragm to the foundation. Primary anchors shall be provided and designed in accordance with the requirements and limitations of Section 1616.5.

1616.7.4 Design force resistance-secondary anchors.

1616.7.4.1 General. In addition to the primary anchors required in Section 1616.7.3, the design force in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in each diaphragm below the base level.

Exception: Secondary anchors are not required where foundations extending in the downhill direction, spaced at not more than 30 feet (9144 mm) on center, extend up to and are directly connected to each diaphragm below the base level for at least 70% of the diaphragm depth.

1616.7.4.2 Secondary anchor capacity. Secondary anchors at each diaphragm below the base level diaphragm shall be designed for a minimum force equal to the design force but not less than 300 pounds per lineal foot (4.38 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1219 mm) on center.

1616.7.4.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1616.8.

1616.8 Primary and secondary anchorage and diaphragm strut design. Primary and secondary anchors and diaphragm struts shall be designed in accordance with the following provisions:

1616.8.1 Fasteners. All bolted fasteners used to develop connections to wood members shall be provided with square plate washers at all bolt heads and nuts. Washers shall be minimum 3/16 inch (4.8 mm) thick and two inch (51 mm) square for 1/2-inch (12.7mm) diameter bolts, and 1/4-inch (6.4 mm) thick and 2-1/2-inch (64 mm) square for 5/8-inch (15.9 mm) diameter or larger bolts. Nuts shall be wrench tightened prior to covering.

1616.8.2 Fastening. The diaphragm to foundation anchorage shall not be accomplished by the use of toenailing, nails subject to withdrawal, or wood in cross-grain bending or cross-grain tension.

1616.8.3 Size of wood members. Wood diaphragm struts collectors, and other wood members connected to primary anchors shall not be less than three-inch (76 mm) nominal width. The effects of eccentricity on wood members shall be evaluated as required per Item 1616.8.9.

1616.8.4 Design. Primary and secondary anchorage, including diaphragm struts, splices, and collectors shall be designed for 125% of the tributary force.

1616.8.5. Allowable stress increase. The one-third allowable stress increase permitted under Section 1605.3.2 shall not be taken when the working (allowable) stress design method is used.

1616.8.6 Steel element of structural wall anchorage system. The strength design forces for steel elements of the structural wall anchorage system, with the

exception of anchor bolts and reinforcing steel, shall be increased by 1.4 times the forces otherwise required.

1616.8.7 Primary anchors. The load path for primary anchors and diaphragm struts shall be fully developed into the diaphragm and into the foundation. The foundation must be shown to be adequate to resist the concentrated loads from the primary anchors.

1616.8.8 Secondary anchors. The load path for secondary anchors and diaphragm struts shall be fully developed in the diaphragm but need not be developed beyond the connection to the foundation.

1616.8.9. Symmetry. All lateral force foundation anchorage and diaphragm strut connections shall be symmetrical. Eccentric connections may be permitted when demonstrated by calculation or tests that all components of force have been provided for in the structural analysis or tests.

1616.8.10 Wood ledgers. Wood ledgers shall not be used to resist cross-grain bending or cross-grain tension.

1616.9 Lateral-force-resisting elements normal to the downhill direction.

1616.9.1 General. In the direction normal to the downhill direction, lateral-force resisting elements shall be designed in accordance with the requirements of this section.

1616.9.2 Base shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 4.5 for bearing wall and building frame systems.

1616.9.3 Vertical distribution of seismic forces. For seismic forces acting normal to the downhill direction the distribution of seismic forces over the height of the building using Section 12.8.3 of ASCE 7 shall be determined using the height measured from the top of the lowest level of the building foundation.

1615.9.4 Drift limitations. The story drift below the base level diaphragm shall not exceed 0.007 times the story height. The total drift from the base level diaphragm to the top of the foundation shall not exceed 3/4 inch (19 mm). Where the story height or the height from the base level diaphragm to the top of the foundation varies because of a stepped footing or story offset, the height shall be measured from the average height of the top of the foundation. The story drift shall not be reduced by the effect of horizontal diaphragm stiffness.

Where code-prescribed wind forces govern the design of the lateral force resisting system normal to the downhill direction, the drift limitation shall be 0.0025 for the story drift and the total drift from the base level diaphragm to the top of the foundation may exceed 3/4 inch (19 mm) when approved by the Department. In no case, however, shall the drift limitations for seismic forces be exceeded.

1615.9.5 Distribution of lateral forces.

1616.9.5.1 General. The design lateral force shall be distributed to lateral-force resisting elements of varying heights in accordance with the stiffness of each individual element.

1616.9.5.2 Wood structural panel sheathed walls. The stiffness of a stepped wood structural panel shear wall may be determined by dividing the wall into adjacent rectangular elements, subject to the same top of wall

deflection. Deflections of shear walls may be estimated by AF&PA SDPWS Section 4.3.2. Sheathing and fastening requirements for the stiffest section shall be used for the entire wall. Each section of wall shall be anchored for shear and uplift at each step. The minimum horizontal length of a step shall be eight feet (2438 mm) and the maximum vertical height of a step shall be two feet, eight inches (813 mm).

1616.9.5.3 Reinforced concrete or masonry shear walls. Reinforced concrete or masonry shear walls shall have forces distributed in proportion to the rigidity of each section of the wall.

1616.9.6 Limitations. The following lateral force-resisting-elements shall not be designed to resist lateral forces below the base level diaphragm in the direction normal to the downhill direction:

1. Cement plaster and lath,
2. Gypsum wallboard, and
3. Tension-only braced frames.

Braced frames designed in accordance with the requirements of Section 2205.2.2 of this Code may be designed as lateral-force-resisting elements in the direction normal to the downhill direction, provided lateral forces do not induce flexural stresses in any member of the frame. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1616.10 Specific design provisions.

1616.10.1 Footings and grade beams. All footings and grade beams shall

comply with the following:

1. Grade beams shall extend at least 12 inches (305 mm) below the lowest adjacent grade and provide a minimum 24-inch (610 mm) distance horizontally from the bottom outside face of the grade beam to the face of the descending slope.
2. Continuous footings shall be reinforced with at least two No. 4 reinforcing bars at the top and two No. 4 reinforcing bars at the bottom.
3. All main footing and grade beam reinforcement steel shall be bent into the intersecting footing and fully developed around each corner and intersection.
4. All concrete stem walls shall extend from the foundation and reinforced as required for concrete or masonry walls

1616.10.2 Protection against decay and termites. All wood to earth separation shall comply with the following:

1. Where a footing or grade beam extends across a descending slope, the stem wall, grade beam, or footing shall extend up to a minimum 18 inches (457 mm) above the highest adjacent grade.

Exception: At paved garage and doorway entrances to the building, the stem wall need only extend to the finished concrete slab, provided the wood framing is protected with a moisture proof barrier.

2. Wood ledgers supporting a vertical load of more than 100 pounds per lineal foot (1.46 kN/m) and located within 48 inches (1219 mm) of adjacent grade are prohibited. Galvanized steel ledgers and anchor bolts, with or without wood nailers, or treated or decay resistant sill plates supported on a concrete or masonry seat, may be used.

1616.10.3 Sill plates. All sill plates and anchorage shall comply with the following:

1. All wood framed walls, including nonbearing walls, when resting on a footing, foundation, or grade beam stem wall, shall be supported on wood sill plates bearing on a level surface.
2. Power-driven fasteners shall not be used to anchor sill plates except at interior nonbearing walls not designed as shear walls.

1616.10.4 Column base plate anchorage. The base of isolated wood posts (not framed into a stud wall) supporting a vertical load of 4000 pounds (17.8 kN) or more and the base plate for a steel column shall comply with the following:

1. When the post or column is supported on a pedestal extending above the top of a footing or grade beam, the pedestal shall be designed and reinforced as required for concrete or masonry columns. The pedestal shall be reinforced with a minimum of four No. 4 bars extending to the bottom of the footing or grade beam. The top of exterior pedestals shall be sloped for positive drainage.
2. The base plate anchor bolts or the embedded portion of the post base, and the vertical reinforcing bars for the pedestal, shall be confined

with two No. 4 or three No. 3 ties within the top five inches (127 mm) of the concrete or masonry pedestal. The base plate anchor bolts shall be embedded a minimum of 20 bolt diameters into the concrete or masonry pedestal. The base plate anchor bolts and post bases shall be galvanized and each anchor bolt shall have at least two galvanized nuts above the base plate.

1616.10.5 Steel beam to column supports. All steel beam to column supports shall be positively braced in each direction. Steel beams shall have stiffener plates installed on each side of the beam web at the column. The stiffener plates shall be welded to each beam flange and the beam web. Each brace connection or structural member shall consist of at least two 5/8 inch (15.9 mm) diameter machine bolts.

SECTION IA-53. Section 1704.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1704.1 General. Where application is made for construction as described in this section, the owner or the *registered design professional in responsible charge* acting as the owner's agent shall employ one or more *approved agencies* to perform inspections during construction on the types of work listed under Section 1704. These inspections are in addition to the inspections specified in *Section 110 Chapter 1 Division II*.

The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the *building official*, for the inspection of the particular type of construction or operation requiring *special inspection*. The *registered design professional in responsible charge* and engineers of record involved in the design of

the project are permitted to act as the *approved agency* and their personnel are permitted to act as the special inspector for the work designed by them, provided those personnel meet the qualification requirements of this section to the satisfaction of the *building official*. The special inspector shall provide written documentation to the building official demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of *special inspection* activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code.

Exceptions:

1. *Special inspections* are not required for work of a minor nature or as warranted by conditions in the jurisdiction as *approved* by the *building official*.
2. *Special inspections* are not required for building components unless the design involves the practice of professional engineering or architecture as defined by applicable state statutes and regulations governing the professional registration and certification of engineers or architects.
3. [HCD 1] *The provisions of Health and Safety Code Division 13, Part 6 and the California Code of Regulations, Title 25, Division 1, Chapter 3, commencing with Section 3000, shall apply to the construction and inspection of factory-built housing as defined in Health and Safety Code Section 19971.*

SECTION IA-54. Section 1704.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1704.4 Concrete construction. The *special inspections* and verifications for concrete construction shall be as required by this section and Table 1704.4.

Exception: *Special inspection* shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less in height that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi)(17.2 Mpa).
2. Continuous concrete footings supporting walls of buildings three stories or less above *grade plane* that are fully supported on earth or rock where:
 - 2.1. The footings support walls of light-frame construction;
 - 2.2. The footings are designed in accordance with Table 1809.7; or
 - 2.3. The structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 MPa), regardless of the compressive strength specified in the *construction documents* or used in the footing construction.
3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 MPa).
4. Concrete patios, driveways and sidewalks, on grade.

SECTION IA-55. Section 1704.8 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1704.8 Driven deep foundations and connecting grade beams. *Special inspections* shall be performed during installation and testing of driven deep foundation elements as required by Table 1704.8. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The approved geotechnical report, and the *construction documents* prepared by the *registered design professionals*, shall be used to determine compliance. Special inspections for connecting grade beams shall be in accordance with Section 1704.4.

SECTION IA-56. Section 1704.9 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1704.9 Cast-in-place deep foundations. *Special inspections* shall be performed during installation and testing of cast-in-place foundation elements as required by Table 1704.8. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The approved geotechnical report, and the *construction documents* prepared by the *registered design professionals*, shall be used to determine compliance. Special inspections for connecting grade beams shall be in accordance with Section 1704.4.

SECTION IA-57. Section 1705.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1705.3 Seismic resistance. The statement of special inspections shall include seismic requirements for cases covered in Sections 1705.3.1 through 1705-3.5.

Exception: Seismic requirements are permitted to be excluded from the statement of special inspections for structures designed and constructed in accordance with the following:

1. The structure consists of light-frame construction; the design spectral response acceleration at short periods, S_{DS} as determined in Section 1613.5.4, does not exceed 0.5g; and the height of the structure does not exceed 35 feet (10 668 mm) above *grade plane*; or
2. The structure is constructed using a reinforced masonry structural system or reinforced concrete structural system: the design spectral response acceleration at short periods, S_{DS} , as determined in Section 1613.5.4, does not exceed 0.5g, and the height of the structure does not exceed 25 feet (7620 mm) above *grade plane*; or
3. Detached one- or two-family dwellings not exceeding two *stories above grade plane*, provided the structure is not assigned to Seismic Design Category D, E, or F and does not have any of the following plan or vertical irregularities in accordance with Section 12.3.2 of ASCE 7:
 - 3.1. Torsional irregularity.
 - 3.2. Nonparallel systems.
 - 3.3. Stiffness irregularity—extreme soft story and soft story.
 - 3.4. Discontinuity in capacity—weak story.

SECTION IA-58. Section 1710.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1710.1 General. Where required by the provisions of Section 1710.2 or 1710.3 the owner

shall employ the *registered design* professional in responsible charge for the structural design, or another registered design professional designated by the registered design professional in responsible charge for the structural design to perform structural observations as defined in Section 1702.

Prior to the commencement of observations, the structural observer shall submit to the *building official* a written statement identifying the frequency and extent of structural observations

The owner or owner's representative shall coordinate and call a preconstruction meeting between the registered design professional in responsible charge for the structural design, structural observer, contractor, affected subcontractors and special inspectors. The structural observer shall preside over the meeting. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load resisting systems of the structure and to review scheduling of the required observations. A record of the meeting shall be included in the report submitted to the building official.

Observed deficiencies shall be reported in writing to the owner's representative, special inspector, contractor and the building official. Upon the form prescribed by the building official, the structural observer shall submit to the building official a written statement at each significant construction stage stating that the site visits have been made and identifying any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved. A final report by the structural observer which states that all observed deficiencies have been resolved is required before acceptance of the work by the building official.

SECTION IA-59. Section 1710.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1710.2 Structural observations for seismic resistance. Structural observations shall be provided for those structures included in *Seismic Design Category D, E or F*, as determined in Section 1613, where one or more of the following conditions exist:

1. The structure is classified as *Occupancy Category III* or *IV* in accordance with Section 1604.5
2. The height of the structure is greater than 75 feet (22860 mm) above the base.
3. The structure is classified as *Occupancy Category I* or *II* in accordance with Section 1604.5 and a lateral design is required for the structure or portion thereof.

Exception: One-story wood framed Group R-3 and Group U Occupancies less than 1500 square feet, and one-story Groups B, F, M and S Occupancies with an occupant load less than 10 provided the adjacent grade is not steeper than 1 unit vertical in 10 units horizontal (10% sloped), assigned to Seismic Design Category D.

4. When so designated by the *registered design professional* in responsible for the Structural design.
5. When such observation is specifically required by the *building official*.

SECTION IA-60 Section 1805.4.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1805.4.3 Drainage discharge. The floor base and foundation perimeter drain shall discharge by gravity or mechanical means into an approved drainage system that

complies with the *California Plumbing Code*. On all building sites, and other parcels where natural drainage is altered, drainage devices acceptable to the Building Official and the City Engineer shall be installed to conduct concentrated storm water to a location approved by the City Engineer.

Exception: Where a site is located in well-drained gravel or sand or sand/gravel mixture soils, a dedicated drainage system is not required.

SECTION IA-61. Section 1807.1.4 of Volume IA of the Glendale Building and Safety Code, 2011, regarding the use of wood foundations, is hereby repealed.

SECTION IA-62. Section 1807.1.6 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows and all subsections 1807.1.6.1 through 1807.1.6.3.2, including tables, shall remain as set forth in the California Building Code, 2010:

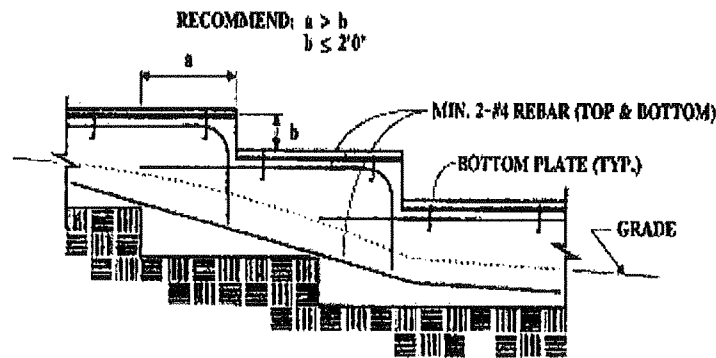
1807.1.6 Prescriptive design of concrete and masonry foundation walls. Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be permitted to be designed and constructed in accordance with this section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E or F.

SECTION IA-63. Section 1809.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1809.3 Stepped footings. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the

elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures assigned to Seismic Design Category D, E or F, the steeping requirements shall also apply to the top surface of grade beams supporting walls. Footings shall be reinforced with four 1/2 inch diameter (12.5mm) deformed reinforcing bars. Two bars shall be placed at the top and bottom of the footings as shown in Figure 1809.3



STEPPED FOUNDATIONS

FIGURE 1809.3
STEPPED FOOTING

SECTION IA-64. Section 1809.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1809.7 Prescriptive footing for light-frame construction.

Where a specific design is not provided, concrete or masonry-unit footing supporting walls of light-frame construction shall be permitted to be designed and constructed in accordance with Table 1809.7. Prescriptive footings in Table 1809.7, shall not support

structures that exceeds one story above grade plane when assigned to Seismic Design Category D, E or F.

SECTION IA-65. Table 1809.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

TABLE 1809.7
PRESCRIPTIVE FOOTINGS SUPPORTING WALLS OF
LIGHT-FRAME CONSTRUCTION ^{a, b, c, d, e}

NUMBER OF FLOORS SUPPORTED BY THE FOOTING^f	WIDTH OF FOOTING (inches)	THICKNESS OF FOOTING (inches)
1	12	6
2	15	6
3	18	8 ^g

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

Notes to Table 1809.7:

- a. Depth of footings shall be in accordance with Section 1805.2
- b. The ground under the floor is permitted to be excavated to the elevation of the top of the footing.
- c. [Not adopted]
- d. See Section 1908 for additional requirements for footings of structures assigned to Seismic Design Category C, D, E or F.
- e. For thickness of foundation walls, see Section 1805.5
- f. Footings are permitted to support a roof in addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.

SECTION IA-66. Section 1809.12 of Volume IA of the Glendale Building and Safety Code, 2011, regarding the use of timber footings, is hereby repealed.

SECTION IA-67. Section 1810.3.2.4 of Volume IA of the Glendale Building and Safety Code, 2011, regarding the use of timber foundations, is hereby repealed.

SECTION IA-68. Section 1908.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows and subsection 1908.1.1 shall remain as set forth in the California Building Code, 2010:

1908.1 General. The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through 1908.1.14.

SECTION IA-69. Section 1908.1.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1908.1.2 ACI 318, Section 21.1.1. Modify ACI 318 Sections 21.1.1.3 and 21.1.1.7 to read as follows:

21.1.1.3 - Structures assigned to Seismic Design Category A shall satisfy requirements of Chapters 1 to 19 and 22; Chapter 21 does not apply. Structures assigned to Seismic Design Category B, C, D, E or F also shall satisfy

21.1.1.4 through 21.1.1.8, as applicable. Except for structural elements of plain concrete complying with Section 1908.1.8 of the California Building Code, structural elements of plain concrete are prohibited in structures assigned to Seismic Design Category C, D, E or F.

21.1.1.7 - Structural systems designated as part of the seismic-force-resisting system shall be restricted to those permitted by ASCE 7. Except for Seismic Design Category A, for which Chapter 21 does not apply, the following provisions shall be satisfied for each

structural system designated as part of the seismic-force-resisting system, regardless of the *Seismic Design Category*:

- (a) Ordinary moment frames shall satisfy 21.2.
- (b) Ordinary reinforced concrete structural walls *and ordinary precast structural walls* need not satisfy any provisions in Chapter 21.
- (c) Intermediate moment frames shall satisfy 21.3.
- (d) Intermediate precast *structural* walls shall satisfy 21.4.
- (e) Special moment frames shall satisfy 21.5 through 21.8.
- (f) Special structural walls shall satisfy 21.9.
- (g) Special structural walls constructed using precast concrete shall satisfy 21.10.
- (h) [BSC] *In Seismic Design Category D, E or F, concrete tilt-up wall panels which exceed the limitations of intermediate precast structural wall systems shall satisfy 21.9 in addition to 21.4.2. and 21.4.3.*

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7. Concrete tilt-up wall panels classified as intermediate precast structural wall system shall satisfy 21.9 in addition to 21.4.2 and 21.4.3 for structures assigned to Seismic Design Category D, E, or F.

SECTION IA-70. Section 1908.1.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1908.1.3 ACI 318, Section 21.4. Modify ACI 318, Section 21.4, by renumbering Section 21.4.3 to become 21.4.4 and adding new Sections 21.4.3, 21.4.5, 21.4.6 *and 21.4.7* to read as follows:

21.4.3 - Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.

21.4.4- Elements of the connection that are not designed to yield shall develop at least 1.5 Sy.

21.4.5— [BSC] Wall piers in Seismic Design Category D, E or F shall comply with Section 1908.1.4 of this code.

21.4.6- Wall piers not designed as part of a moment frame in buildings assigned to Seismic Design Category C shall have transverse reinforcement designed to resist the shear forces determined from 21.3.3. Spacing of transverse reinforcement shall not exceed 8 inches (203 mm). Transverse reinforcement shall be extended beyond the pier clear height for at least 12 inches (305 mm).

Exceptions:

- 1. Wall piers that satisfy 21.13.*
- 2. Wall piers along a wall line within a story where other shear wall segments provide lateral support to the wall piers and such segments have a total stiffness of at least six times the sum of the stiffnesses of all the wall piers.*

21.4.7- Wall segments with a horizontal length-to-thickness ratio less than 2.5 shall be designed as columns.

SECTION IA-71. Section 1908.1.8 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1908.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10- Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1 — Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

- (a) Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement per cubic yard.*
- (b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.*
- (c) Plain concrete footings supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.*

Exceptions:

In detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, plain concrete footings with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

SECTION IA-72. Section 1908.1.11 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

1908.1.11 ACI 318, Section 21.6.4.1. ACI 318 Section 21.6.4.1 is modified as follows:

Where the calculated point of contra flexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in ACI 318 Sections 21.6.4.1, Items (a) through (c), over the full height of the member.

SECTION IA-73 Section 1908.1.12 of Volume IA the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

1908.1.12 ACI 318, Section 21.6.4. Modify ACI 318, Section 21.6.4, by adding Section 21.6.4.8 as follows:

21.6.4.8 – At any section where the design strength, ϕP_n , of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 21.5.4.1 and 21.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.6.4.1 through 21.6.4.3 shall be provided. For beams framing into opposite sides of the column, the moment components may be assumed to be of opposite sign. For the determination of the design strength, ϕP_n , of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.

SECTION IA-74. Section 1908.1.13 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

1908.1.13 ACI 318, Section 21.7.4. Modify ACI 318, Section 21.9.4, by adding Section 21.9.4.6 as follows:

21.9.4.6 – Walls and portions of walls with $P_u > 0.35P_o$ shall not be considered to contribute to the calculated strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 21.13.

SECTION IA-75. Section 1908.1.14 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

1908.1.14 ACI 318, Section 21.11.6. Modify ACI 318 Section 21.11.6 by adding the following:

Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than 3 inches (76 mm) or $6 d_b$ thick, where d_b is the diameter of the largest reinforcement in the topping slab.

SECTION IA-76. Section 1909 of Volume IA of the Glendale Building and Safety Code, 2011, including all its subsections, regarding the use of structural plain concrete, is hereby amended to read as follows:

SECTION 1909

STRUCTURAL PLAIN CONCRETE

1909.1 Scope. Plain concrete shall not be used other than as fill. The minimum specified compression strength of concrete used as fill shall be 1,500 psi (10.3 Mpa) at 28 days.

SECTION IA-77. Section 2113.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2113.1 Definition. A masonry chimney is a chimney constructed of concrete or masonry, hereinafter referred to as “masonry.” Masonry chimneys shall be constructed, anchored, supported and reinforced as required in this chapter. Notwithstanding any other provisions of this code, an existing masonry chimney which is altered or repaired more than ten percent (10%) of its replacement cost within any twelve (12)-month period shall have its entire chimney structure comply with the current requirements of this code or other standards approved by the building official.

SECTION IA-78. Section 2204.1.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

2204.1.1 Consumables for welding.

2204.1.1.1 Seismic Force Resisting System (SFRS) welds. All welds used in members and connections in the SFRS shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3. AWS D1.8 Clauses 6.3.5, 6.3.6, 6.3.7 and, 6.3.8 shall apply only to demand critical welds.

2204.1.1.2 Demand critical welds. Where welds are designated as demand critical, they shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3.

SECTION IA-79. Section 2205.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

2205.4 Modifications to AISC 341.

2205.4.1 Part I, Structural Steel Building Provisions Modifications.

2205.4.1.1 Part I, Section 13, Special Concentrically Braced Frames (SCBF) Modifications.

2205.4.1.1.1 AISC 341, Part I, 13, Members. Add Section AISC 341, 13.2f as follows:

AISC 341, 13.2f – Member Types.

The use of rectangular HSS are not permitted for bracing members, unless filled solid with cement grout having a minimum compressive strength of 3000 psi (20.7 MPa) at 28 days. The effects of composite action in the filled composite brace shall be considered in the sectional properties of the system where it results in the more severe loading condition or detailing.

SECTION IA-80. Section 2304.9.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2304.9.1 Fastener Requirements. Connections for wood members shall be designed in accordance with the appropriate methodology in Section 2301.2. The number and size of fasteners connecting wood members shall not be less than that set forth in Table 2304.9.1. Staples fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E, or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear wall values are substantiated by cyclic testing and approved by the building official.

SECTION IA-81. Section 2305.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

2305.4 Quality of nails. Mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, minimum length and minimum head diameter. Clipped head or box nails are not permitted in new construction. The allowable design value for clipped head nails in existing construction may be taken at no more than the nail-head-area ratio of that of the same size hand-driven nails.

SECTION IA-82. Section 2305.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

2305.5 Hold-down connectors. Hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of the allowable earthquake load values that do not consider cyclic loading of the product. Connector bolts into wood framing require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-downs shall be re-tightened just prior to covering the wall framing.

SECTION IA-83. Section 2306.2.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2306.2.1 Wood structural panel diaphragms. Wood structural panel diaphragms shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel diaphragms are permitted to resist horizontal forces using the allowable shear capacities

set forth in Table 2306.2.1(1) or 2306.2.1(2). The allowable shear capacities in Tables 2306.2.1(1) and 2306.2.1(2) are permitted to be increased 40 percent for wind design. Wood structural panel diaphragms fastened with staples shall not be used to resist seismic forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear wall values are substantiated by cyclic testing and approved by the building official.

Wood structural panel diaphragms fastened used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.

SECTION IA-84. Table 2306.2.1(1) of Volume IA of the Glendale Building and Safety Code, 2011, is hereby repealed in its entirety and replaced with Table 2306.2.1(1) to read as follows:

(TABLE FOUND ON NEXT PAGE)

TABLE 2306.2.1(1)

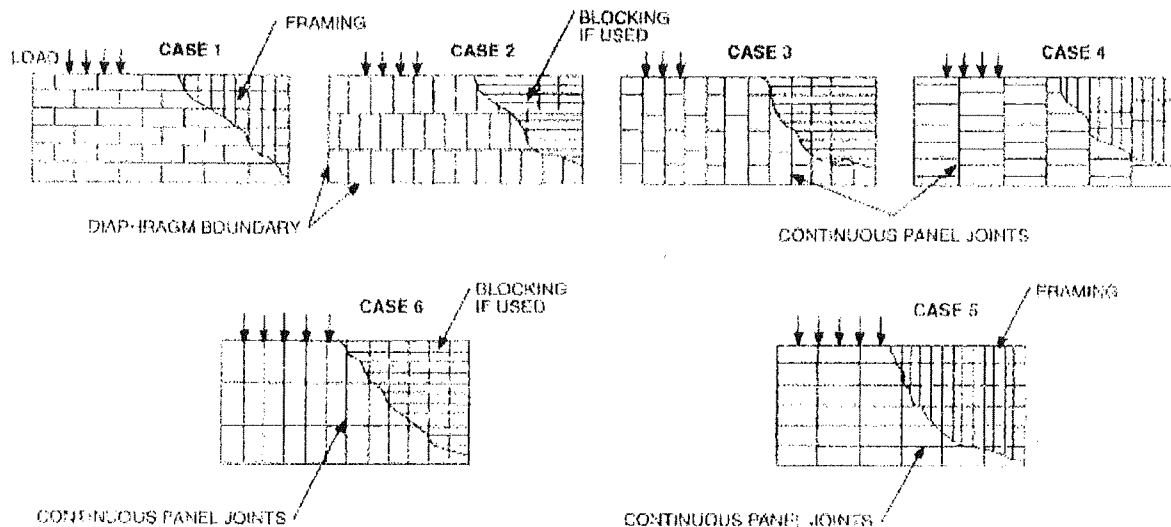
**ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH
FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^a FOR WIND OR SEISMIC LOADING¹**

PANEL GRADE	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (Inch)	MINIMUM NOMINAL WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES ^e (inches)	BLOCKED DIAPHRAGMS					UNBLOCKED DIAPHRAGMS	
					Fastener spacing (inches) at diaphragm boundaries (all cases) at continuous panel edges parallel to load (Cases 3,4), and at all panel edges (Cases 5, 6) ^b					Fastener spaced 6" max. at supported edges ^b	
					6	4	2 ½ ^c	2 ^c		Case 1 (No unblocked edges or continuous joints parallel to load)	
					Fastener spacing (inches) at other panel edges (Cases 1,2,3 and 4) ^b					All other configurations (Cases 2, 3, 4, 5 and 6)	
Structural I Grades	8d (2 ½" x 0.131")	1 3/8	3/8	2	6	4	2 ½ ^c	2 ^c	6	4	3
	10d ^d (3" x 0.148")	1 1/2	15/32	3	270	360	530	600	270	360	600
					300	400	600	675	300	400	675
					320	425	640	730	320	425	730
Sheathing, single floor and other grades covered in DOC PS1 and PS2	6d ^e (2" x 0.113")	1 1/4		2	360	480	720	820	360	480	820
				3	185	250	375	420	185	250	420
				3	210	280	420	475	210	280	475
	8d (2 ½" x 0.131")	1 3/8	3/8	2	240	320	480	545	240	320	545
				3	270	360	540	610	270	360	610
	8d (2 ½" x 0.131")	1 3/8	7/16	2	255	340	505	575	255	340	575
				3	285	380	570	645	285	380	645
	8d (2 ½" x 0.131")	1 3/8	15/32	2	270	360	530	600	270	360	600
				3	300	400	600	675	300	400	675
	10d ^d (3" x 0.148")	1 1/2		2	290	385	575	655	290	385	655
				3	324	430	650	735	324	430	735
	10d ^d (3" x 0.148")	1 1/2	19/32	2	320	425	640	730	320	425	730
				3	360	480	720	820	360	480	820

THIS PAGE IS INTENTIONALLY LEFT BLANK

TABLE 2306.2.1(1)- continued

**ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL
DIAPHRAGMS WITH
FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^a FOR WIND OR
SEISMIC LOADING^f**



Notes to Table 2306.2.1(1):

For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

- a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = $[1 - (0.5 - SG)]$, where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.
- b. Space fasteners maximum 12 inches o.c. along intermediate framing members (6 inches o.c. where supports are spaced 48 inches o.c.).

- c. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where panel edge nailing is specified at 2 ½ inches o.c. or less.
- d. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where both of the following conditions are met: (1) 10d nails having penetration into framing of more than 1 ½ inches and (2) panel edge nailing is specified at 3 inches o.c. or less.
- e. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.
- f. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

SECTION IA-85. Section 2306.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows and subsection 2306.3.1 shall remain as set forth in the California Building Code, 2010:

2306.3 Wood structural panel shear walls. Wood structural panel diaphragms shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel diaphragms are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.3. The allowable shear capacities in Tables 2306.3 are permitted to be increased 40 percent for wind design.

Wood shear walls shall be constructed of wood structural panels manufactured with exterior glue and not less than 4 feet by 8 feet (1219 mm by 2438 mm), except at boundaries and at changes in framing. Wood structural panel thickness for shear walls

shall not be less than 3/8 inch thick and studs shall not be spaced at more than 16 inches on center.

The maximum allowable shear value for three-ply plywood resisting seismic forces is 200 pounds per foot (2.92 kN/m). Nails shall be placed not less than 1/2 inch (12.7 mm) in from the panel edges and not less than 3/8 inch (9.5mm) from the edge of the connecting members for shear greater than 350 pounds per foot (5.11kN/m). Nails shall be placed not less than 3/8 inch (9.5 mm) from panel edges and not less than 1/4 inch (6.4 mm) from the edge of the connecting members for shears of 350 pounds per foot (5.11kN/m) or less.

Any wood structural panel sheathing used for diaphragms and shear walls that are part of the seismic-force-resisting system shall be applied directly to framing members.

Exception: Wood structural panel sheathing in a horizontal diaphragm is permitted to be fastened over solid lumber planking or laminated decking, provided the panel joints and lumber planking or laminated decking joints do not coincide.

SECTION IA-86. Table 2306.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby repealed in its entirety and replaced with Table 2306.3 to read as follows:

TABLE 2306.3

**ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL
SHEAR WALLS WITH
FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^a FOR SEISMIC
LOADING^{b, h, i, k, l}**

PANEL GRADE	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	ALLOWABLE SHEAR VALUE FOR SEISMIC FORCES PANELS APPLIED DIRECTLY TO FRAMING				
			COMMON NAIL SIZE	Fastener spacing at panel edges (inches)			
				6	4	3	2 ^o
Structural I sheathing	3/8	1 3/8	8d (2½"x0.131" common)	200	200	200	200
	7/16	1 3/8	8d (2½"x0.131" common)	255	395	505	670
	15/32	1 3/8	8d (2½"x0.131" common)	280	430	550	730
		1 1/2	10d (3"x0.148" common)	340	510	665 ^f	870
Sheathing, plywood siding ^g except Group 5 Species	3/8 ^c	1 3/8	8d (2½"x0.113")	160	200	200	200

Notes to Table 2306.3:

For SI: 1 inch = 25.4 mm, 1 foot = 25.4 mm, 1 pound per foot = 14.5939 N/m.

- a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = $[1 - (0.5 - SG)]$, where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.
- b. Panel edges backed with 2-inch nominal or thicker framing. Install panels either horizontally or vertically. Space fasteners maximum 6 inches on center along intermediate framing members for 3/8-inch and 7/16-inch panels installed on studs spaced 24 inches on center. For other conditions and panel thickness, space fasteners maximum 12 inches on center on intermediate supports.
- c. 3/8-inch panel thickness or siding with a span rating of 16 inches on center is the minimum recommended where applied direct to framing as exterior siding. For

grooved panel siding, the nominal panel thickness is the thickness of the panel measured at the point of nailing.

- d. Allowable shear values are permitted to be increased to values shown for 15/32-inch sheathing with same nailing provided (a) studs are spaced a maximum of 16 inches on center, or (b) panels are applied with long dimension across studs.
 - e. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where nails are spaced 2 inches on center or less.
 - f. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where both of the following conditions are met: (1) 10d (3"x0.148") nails having penetration into framing of more than 1-1/2 inches and (2) nails are spaced 3 inches on center or less.
 - g. Values apply to all-veneer plywood. Thickness at point of fastening on panel edges governs shear values.
 - h. Where panels applied on both faces of a wall and nail spacing is less than 6 inches o.
 - c. on either side, panel joints shall be offset to fall on different framing members. Or framing shall be 3-inch nominal or thicker at adjoining panel edges and nails at all panel edges shall be staggered.
 - i. Where shear design values exceed 350 pounds per linear foot, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with Section 2306.1 to transfer the design shear value between framing members.
- Wood structural panel joint and sill plate nailing shall be staggered at all panel edges.

See Section 4.3.6.1 and 4.3.6.4.3 of AF&PA SDPWS for sill plate size and anchorage requirements.

- j. Galvanized nails shall be hot dipped or tumbled.
- k. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.
- l. The maximum allowable shear value for three-ply plywood resisting seismic forces is 200 pounds per foot (2.92 kn/m).

SECTION IA-87. Section 2306.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2306.4 Lumber sheathed shear walls. Single and double diagonally sheathed lumber shear walls shall be designed and constructed in accordance with AF&PA SDPWS. Single and double diagonally sheathed lumber walls shall not be used to resist seismic forces in structures assigned to *Seismic Design Category D, E or F*.

Additional Requirements: [DSA/SS, DSA/SS-CC and OSHPD 1,2 & 4] Single and double diagonally sheathed, lumber walls shall not be used to resist seismic forces in structures assigned to Seismic Design Category D.

SECTION IA-88. Section 2306.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2306.7 Shear walls sheathed with other materials. Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing or gypsum board shall be designed and constructed in accordance with AF&PA SDPWS. Shear walls sheathed with these materials are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.7. Shear walls sheathed with portland cement plaster, gypsum lath, gypsum

sheathing or gypsum board shall not be used to resist seismic forces in structures assigned to *Seismic Design Category* E or F. The allowable shear values shown in Table 2306.4.5 for material in Category 1 is limited to 90 pound per foot (1.31 kN/m); materials in Category 2 thru 4 are limited to 30 pounds per foot (438 N/m). Shear walls sheathed with lath, plaster or gypsum board shall not be used below the top level in a multi-level building.

Exception: [DSA/SS, DSA/SS-CC and OSHPD 1, 2 & 4] Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing or gypsum board shall not be used to resist seismic forces in structures assigned to Seismic-Design Category D.

SECTION IA-89. Table 2306.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

(TABLE FOUND ON NEXT PAGE)

TABLE 2306.7
ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES FOR SHEAR WALLS OF LATH
AND PLASTER OR GYPSUM BOARD WOOD FRAMED WALL ASSEMBLIES

TYPE OF MATERIAL	THICKNESS OF MATERIAL	WALL CONSTRUCTION	FASTENER SPACING ^b MAXIMUM (Inches)	SHEAR VALUE ^{a, e}	MINIMUM FASTENER SIZE ^{c, d, j, k}
1. Expanded metal or woven wire lath and portland cement plaster	7/8"	Unblocked	6	90	No. 11 gage 1 1/2" long, 7/16" head No. 16 gage galv. Staple, 7/8" legs
2. Gypsum lath, plain or perforated with vertical joints staggered	3/8" lath and 1/2" plaster	Unblocked	5	30	No. 13 gage galv. 1 1/8" long, 19/64" head, plasterboard nail
3. Gypsum lath, plain or perforated	3/8" lath and 1/2" plaster	Unblocked	5	30	No. 16 gage galv. Staple, 1 1/8" long, 0.120" nail min. 3/8" head, 1 1/4" long
4. Gypsum board, gypsum veneer base or water-resistant gypsum backing board	1/2"	Unblocked ^f	7	30	5d cooler (1 5/8" x 0.086") or wallboard 0.120" nail, min 3/8" head, 1 1/4" long
		Unblocked ^f	4	30	
		Unblocked	7	30	
		Unblocked	4	30	
		Blocked ^g	7	30	
		Blocked ^g	4	30	No. 6-1 1/4" screws ⁱ
		Unblocked	8/12 ^h	30	
		Blocked ^g	4/16 ^h	30	
		Blocked ^{f, g}	4/12 ^h	30	
		Blocked ^g	8/12 ^h	30	
		Blocked ^g	6/12 ^h	30	
	5/8"	Unblocked ^f	7	30	6d cooler (1 7/8" x 0.092") or wallboard 0.120" nail, min. 3/8" head, 1 3/4" long No. 16 gage galv. staple, 1 1/2" legs, 1 5/8" long
			4	30	
		Blocked ^g	7	30	
			4	30	Base-ply 6d cooler (1 7/8" x 0.092") or wallboard 1 3/4" x 0.120" nail, min. 3/8" head 1 5/8" 16 gage galv. Staple 1 5/8" 16 gage galv. Staple Face ply-8d cooler (2 3/8" x 0.113") or wallboard 0.120" nail, min. 3/8" head, 2 3/8" long No. 15 gage galv. staple, 2 1/4" long
		Blocked ^g Two-ply	Base ply: 9 Face ply: 7	30	
				30	
		Unblocked	8/12 ^h	30	No. 6-1 1/4" screws ⁱ
		Blocked ^g	8/12 ^h	30	

Notes to Table 2306.7:

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per foot = 14.5939 N/m.

- a. These shear walls shall not be used to resist loads imposed by masonry or concrete walls (see Section 4.1.5 of AF & PA SDPWS). Values shown are for short-term loading due to wind or seismic loading. Walls resisting seismic loads shall be subject to the limitations in Section 12.2.1 of ASCE 7. Values shown shall be reduced 25 percent for normal loading.
- b. Applies to fastening at studs, top and bottom plates and blocking.
- c. Alternate fasteners are permitted to be used if their dimensions are not less than the specified dimensions. Drywall screws are permitted to substitute for the 5d (1 5/8" x 0.086"), and 6d (1 7/8" x 0.092") (cooler) nails listed above, and No. 6 1 1/4 inch Type S or W screws for 6d (1 7/8" x 0.092) (cooler) nails.
- d. For properties of cooler nails, see ASTM C 514.
- e. Except as noted, shear values are based on a maximum framing spacing of 16 inches on center.
- f. Maximum framing spacing of 24 inches on center.
- g. All edges are blocked, and edge fastening is provided at all supports and all panel edges.
- h. First number denotes fastener spacing at the edges; second number denotes fastener spacing at intermediate framing members.
- i. Screws are Type W or S.

- j. Staples shall have a minimum crown width of 7/16 inch, measured outside the legs, and shall be installed with their crowns parallel to the long dimension of the framing members.
- k. Staples for the attachment of gypsum lath and woven-wire lath shall have a minimum crown width of 3/4 inch, measured outside the legs.

SECTION IA-90. Section 2308.3.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2308.3.4 Braced wall line support. Braced wall lines shall be supported by continuous foundations.

SECTION IA-91. Section 2308.12.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2308.12.2 Concrete or masonry. Concrete or masonry walls and stone or masonry veneer shall not extend above the basement.

Exception: Stone and masonry veneer is permitted to be used in the first story above grade plane in Seismic Design Category D, provided the following criteria are met:

1. Type of brace in accordance with Section 2308.9.3 shall be Method 3 and the allowable shear capacity in accordance with Table 2306.4.1 shall be a minimum of 350 plf (5108 N/m).
2. The bracing of the first story shall be located at each end and at least every 25 feet (7620 mm) o.c. but not less than 45 percent of the braced wall line.

3. Hold-down connectors shall be provided at the ends of braced walls for the first floor to foundation with an allowable design of 2,100 pounds (9341 N).
4. Cripple walls shall not be permitted.
5. Anchored masonry and stone wall veneer shall not exceed 5 inches (127 mm) in thickness, shall conform to the requirements of Chapter 14 and shall not extend more than 5 feet (1524 mm) above the first story finished floor.

SECTION IA-92. Section 2308.12.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2308.12.4 Braced wall line sheathing. Braced wall lines shall be braced by one of the types of sheathing prescribed by Table 2308.12.4 as shown in Figure 2308.9.3. The sum of lengths of braced wall panels at each braced wall line shall conform to Table 2308.12.4. Braced wall panels shall be distributed along the length of the braced wall line and start at not more than 8 feet (2438 mm) from each end of the braced wall line. Panel sheathing joints shall occur over studs or blocking. Sheathing shall be fastened to studs, top and bottom plates and at panel edges occurring over blocking. Wall framing to which sheathing used for bracing is applied shall be nominal 2 inch wide [actual 1½ inch (38 mm)] or larger members, spaced a maximum of 16 inches on center. Nailing shall be minimum 8d common placed 3/8 inches from panel edges and spaced not more than 6 inches on center, and 12 inches on center along intermediate framing members. Braced wall panel construction types shall not be mixed within a braced wall line.

Braced wall panels required by Section 2308.12.4 may be eliminated when all of the following requirements are met:

1. One story detached garage Group U occupancies not more than 25 feet in depth or length.
2. The roof and three enclosing walls are solid sheathed with ½-inch nominal thickness wood structural panels with 8d common nails placed 3/8 inches from panel edges and spaced not more than 6 inches on center along all panel edges and 12 inches on center along intermediate framing members. Wall openings for doors or windows are permitted provided a minimum 4 foot wide wood structural braced panel with minimum height to length ratio of 2 to 1 is provided at each end of the wall line and that the wall line be sheathed for 50% of its length.

SECTION IA-93. Table 2308.12.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

TABLE 2308.12.4
WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E
(Minimum Length of Wall Bracing per each 25 Linear Feet of Braced Wall Line ^a)

CONDITION	SHEATHING TYPE ^b	$S_{DS} < 0.50$	$0.50 \leq S_{DS} < 0.75$	$0.75 \leq S_{DS} \leq 1.00$	$S_{DS} > 1.00$
One Story	G-P ^c	10 feet 8 inches	14 feet 8 inches	18 feet 8 inches	25 feet 0 inches
	S-W ^d	5 feet 4 inches	8 feet 0 inches	9 feet 4 inches	12 feet 0 inches

Notes to Table 2308.12.4:

For SI: 1 inch=25.4 mm, 1 foot = 304.8 mm

- a. Minimum length of panel bracing of one face of the wall for S-W sheathing shall be at least 4'-0" long or both faces of the wall for G-P sheathing shall be at least 8'-0" long; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required.
- b. G-P = gypsum board, Portland cement, plaster or gypsum sheathing boards; S-W = wood structural panels.
- c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:

For ½ -inch gypsum board, 5d (0.113 inch diameter) cooler nails at 7 inches on center;

For 5/8-inch gypsum board, No 11 gage (0.120 inch diameter) cooler nails at 7 inches on center;

For gypsum sheathing board, 1-¾ inches long by 7/16-inch head, diamond point galvanized nails at 4 inches on center;

For gypsum lath, No. 13 gage (0.092 inch) by 1-¼ inches long, 19/64-inch head, plasterboard at 5 inches on center;

For Portland cement plaster, No. 11 gage (0.120 inch) by 1 ½ inches long, 7/16-inch head at 6 inches on center.
- d. S-W sheathing shall be 15/32" thick nailed with 8d nails, at 6:6:12.

SECTION IA-94. Section 2308.12.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2308.12.5 Attachment of sheathing. Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or Table 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in Structures assigned to Seismic Category D, E, or F.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum 24 inches (6096 mm) on center with four 8d nails per leg (total eight 8d nails per clip). Braced wall panels shall be laterally braced at each top corner and at maximum 24 inch (6096 mm) intervals along the top plate of discontinuous vertical framing.

SECTION IA-95. Section 3102.6.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

3102.6.2 Membrane less than 20 feet (6096 mm). A noncombustible membrane less than 20 feet (6096 mm) above any floor, balcony or gallery shall be permitted for use as the roof or as a skylight of any building or atrium of a building of any type of construction and shall meet all of the following requirements:

1. The applicant shall provide a fire protection report based on the fuel loads and ignition sources below the membrane and shall be approved to the satisfaction of the building official and fire code official.
2. The membrane shall be a minimum of 10 feet (3048 mm) above any floor, balcony or gallery and shall have a minimum separation distance as required by the fire

protection report and no less than 10 feet (3048 mm) above any fuel load or ignition source below the membrane.

3. The membrane shall be State Fire Marshal approved fire retardant fabric.
4. The membrane structure shall be a free standing, self supporting structure.
5. The membrane structure and all supports shall be a non combustible.
6. The applicant shall enter into a Covenant and Agreement with the City of Glendale regarding the maintenance and replacement of the membrane.
7. A maintenance record of the membrane and membrane structure shall be provided on site by the property owner, and shall be provided to the fire department during annual inspections and/or upon request by the fire department.
8. The applicant shall apply for a building permit to replace the membrane every eight years.

SECTION IA-96. Section 3109.4.4.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

3109.4.4.3 Enclosure; required characteristics. An enclosure shall have all of the following characteristics.

- 1. Any access gates through the enclosure open away from the swimming pool and are self-closing with a self-latching device placed no lower than 60 inches (1524 mm) above the ground.*
- 2. A minimum height of 60 inches (1524 mm).*
- 3. A maximum vertical clearance from the ground to the bottom of the enclosure of 2 inches (51mm).*

4. *Gaps or voids, if any, do not allow passage of a sphere equal to or greater than 4 inches (102 mm) in diameter.*
5. *An outside surface free of protrusions, cavities or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.*
6. When an ascending slope adjacent to a pool enclosure exceeds 45° from the horizontal the entire pool enclosure shall extend into the slope a minimum of 24 inches. The height of such extension shall be a minimum of 5 feet (1529 mm) measured perpendicular to the slope.

Authority: Health and Safety Code Section 18942 (b)

Reference: Health and Safety Code Section 115923

Ab 3305, Statutes 1996, C925

SECTION IA-97. Section 3111 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION 3111

SOLAR PHOTOVOLTAIC PANELS/MODULES

3111.1 Solar photovoltaic panels/modules. Solar photovoltaic panels/modules shall comply with the requirements of Volume VI this code.

SECTION IA-98 Section 3202.1.2.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

3202.1.2.1 Change of use/occupancy. Change of use or occupancy of existing encroachment into the public right-of-way shall comply with the following:

1. A structural review by a state licensed professional to evaluate the structure and its attachments (e.g. light fixtures or false ceilings) that they do not fall on the occupants if construction work or any other activities are performed above the occupied space within the public right-of-way.
2. The property owner shall enter into a Covenant and Agreement with the City to indemnify, defend and hold harmless the City of Glendale, its officers, agents, employees and representatives, from and against any and all liability, suits, actions, proceedings, judgments, claims, losses, liens, damages, injuries (whether in contract or in tort, including personal injury, accidental death or property damage, and regardless of whether the allegations are false, fraudulent or groundless), costs and expense (including attorney's fees litigation, arbitration, mediation, appeal expenses) as a condition of approval to change the use of the space within public right-of-way from storage use to other use.

SECTION IA-99. Section 3306.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

3306.2 Walkways. A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 5 feet (1524 mm) in width.

Walkways shall be provided with a durable walking surface. Walkways shall be *accessible* in accordance with Chapter *11A or 11B as applicable*, and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m²).

SECTION IA-100. Section 3306.9.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

3306.9.1 Shoring. The sidewalk and street shall be protected from caving and settlement by shoring conforming to the safety orders issued by the Division of Occupational Safety and Health, Department of Industrial Relations.

SECTION IA-101. Section 3306.10 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

3306.10. Protection of sidewalk excavations. Permits must be secured from the director of public works in accordance with the provisions of the Glendale Municipal Code for making an excavation within a public street, sidewalk, parkway or public property.

When any portion of a public sidewalk is to be excavated, the holder of the permit shall construct a substantial temporary walkway not less than five (5) feet (1524 mm) in width for pedestrian travel over the areas to be excavated or around the same.

SECTION IA-102. Section 3306.11 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

3306.11. Protection of Obstructions. No person excavating, refilling or obstructing any public sidewalk, street, alley or roadway in the city shall fail or neglect to place barriers at each end and at all necessary places along any such excavations or obstructions to prevent accidents and no such person shall fail or neglect to display and maintain amber lights from sunset to sunrise at each end and at all necessary places along any such excavation or obstructions run across or substantially across any sidewalk, street, alley, or roadway, such amber lights at such places shall be placed not more than five (5) feet (1524 mm) apart. If, in any case, the director of public works shall designate

any particular locations for barriers or require additional light, such barriers or lights shall be placed and maintained at those locations designated. If any permittee fails to perform the duties herein before defined, the director of public works may cause the same to be performed, at the expense of the permittee, or if a deposit has been made pursuant to the Glendale Municipal Code, 1995, then the expense of such performance may be deducted therefrom to the extent said deposit is sufficient, and if insufficient, then the remaining amount may be charged against the permittee.

SECTION IA-103. Section 3308.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

3308.3 Street Use Permits

3308.3.1 Permits generally. No person shall use or occupy or obstruct any portion of any sidewalk, street, alley or roadway for storing materials for building purposes, for mixing concrete or mortar, or for any purpose incidental thereto, or for the construction of walkways, fences or canopies in accordance with the provisions of this code, unless a street use permit has been first obtained from the director of public works to do so, and at least one-half of the width of the sidewalk, or a width to be designated by the director of public works of the street, alley or roadway is at all times kept free and clear of all obstructions.

3308.3.2 Street use permit to be posted. The street use permit required by this Section 3308.3 shall at all times during such use, occupancy or obstruction, be conspicuously posted on or near the sidewalk, street, alley or roadway used, occupied or obstructed.

3308.3.3 Term of permit; removal of obstructions. Any permit required by this Section 3308.3 shall be granted for not longer than sixty (60) days. Upon completion of

the work, all such obstructions shall be removed, all damages caused thereby repaired and the street and sidewalk restored to their original condition to the satisfaction of the director of public works. If any permittee fails or neglects to so remove, repair and restore within three (3) days after being notified by the director of public works in person or by letter, the director of public works may cause such removal, repairs and restoration to be done at the expense of the permittee.

3308.3.4 Application for street use permits. All applications for street use permits required by this Section 3308.3 shall be in writing and made to the building and safety section and shall be in writing and shall be accompanied by a fee for services provided hereunder which shall be established or modified by resolution of the City Council. The schedule for such fees shall remain on file and be available in the office of the traffic and transportation administrator.

SECTION IA-104. Section 3308.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

3308.4 Mixing Mortar on Public Property. The mixing or handling of mortar, concrete or other material on public property, when authorized by the director of public works under a street use permit issued under Section 3308.3 of this Code, shall be done in a mechanical mixer or in a tight box in such a manner as to prevent dripping or splashing on public property.

SECTION IA-105. Appendix I, PATIO COVERS, of the California Building Code, 2010 edition, published and copyrighted by the International Code Council is hereby adopted into Volume 1A of the Glendale Building and Safety Code, 2011, by reference and by such reference is incorporated herein as if fully set forth.

SECTION IA-106. Appendix J, GRADING, of the California Building Code, 2010 edition, published and copyrighted by the International Code Council, is hereby adopted into Volume 1A of the Glendale Building and Safety Code, 2011, by reference, as further amended herein, into the Glendale Building and Safety Code, 2011, and by such reference, is incorporated herein as if fully set forth.

SECTION IA-107. Appendix J Section J101.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J101.1 Scope. The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments and the control of grading site runoff, including erosion sediments and construction-related pollutants. Where conflicts occur between the technical requirements of this chapter and the geotechnical report, the more restrictive requirements shall govern.

SECTION IA-108. Appendix J Section J101.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J101.3 Hazards.

1. Whenever the building official determines that any land or any existing excavation or fill has, from any cause, become a menace to life or limb, or endangers public or private property, or adversely affects the safety, use or stability of public or private property, the owner or other person in legal control of the property concerned shall, upon receipt of a written notice thereof from the building official, correct such condition in accordance with the provisions of this appendix and the requirements and conditions set forth in the notice so as to eliminate such condition. The owner or other person in legal control of the

property shall immediately comply with the provisions set forth in the notice and shall complete the work within 180 days from the date of the notice unless a shorter period of time for completion has been specified in the notice in which case the owner shall comply with the shorter period of time. Upon written application and good cause shown, the building official may approve the request for an extension of time to complete the work required by the notice.

2. If the above condition is not eliminated within the specified time period, the building official may file with the Office of the Los Angeles County Recorder a certificate stating that the property is deemed substandard and that the owner thereof has been so notified to correct the substandard condition. Said certificate shall specify the conditions creating the substandard classification.
3. When the above conditions have been corrected to the satisfaction of the building official, upon receiving a sixty-dollar fee from the owner or his agent, the building official shall file with the Office of the Los Angeles County Recorder, within a reasonable period of time, a certificate specifying that the conditions creating the substandard classification have been corrected and that the property is no longer considered substandard.

SECTION IA-109. Appendix J Section J101.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J101.4 Safety precautions.

1. General.

- (a) If at any stage of work on an excavation or fill, the building official determines that the work has become or is likely to become dangerous to any

person, or is likely to endanger any property, public or private, the building official shall be authorized to require safety precautions to be immediately taken by the property owner as a condition to continuing such permitted work or to require cessation thereof forthwith unless and until it is made safe and to amend the plans for such work.

(b) Safety precautions may include, but shall not be limited to, specifying a flatter exposed slope or construction of additional drainage facilities, berms, terracing, compaction, cribbing, retaining walls or buttress fills, slough walls, desilting basins, check dams, benching, wire mesh and guniting, rock fences, revetments or diversion walls.

(c) Upon the determination of the building official that such safety precautions during grading are necessary, the building official shall provide a notice and order to the permittee to implement same. After receiving such notice, oral or written, it is unlawful for the permittee or any person to proceed with such work contrary to such order.

2. **Hillside Areas.** For the purposes of this appendix, hillside areas shall include all property designated as "mountainous terrain" pursuant to Article 16.08.270 of the Glendale Municipal Code, 1995. Except as specifically excepted in this appendix, no person shall conduct any grading operation in hillside areas unless such operations are for building site development or another use for which the permittee has obtained an entitlement prior to applying for a grading permit.

Exception: Grading which is not connected with building site development may be conducted in hillside areas only when the applicant

demonstrates to the satisfaction of the building official, that such work does all of the following: enhances the physical stabilization of the affected property; is not detrimental to public health, safety or welfare; and is in conformity with the approved master plan for the area, if such master plan exists. A tentative tract or division of land map shall not be required for such exempt grading.

3. Removal of Ground Cover.

(a) The existing vegetative ground cover of any watershed in any hillside area shall not be destroyed, removed or damaged except for routine maintenance pursuant to lawful grading, use or occupancy of the property or to clear hazardous vegetation near structures and roads in areas designated as Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas) pursuant to this code.

(b) Except for indigenous trees as regulated by Chapter 12.44 of the Glendale Municipal Code, 1995, and as that chapter may subsequently be amended, removal of trees and shrubbery may be permitted where such work will not cause erosion, slope failure, or will not unduly disturb the turf, sod or other existing vegetative ground cover. Whenever such groundcover is removed or damaged pursuant to a validly issued grading permit, the permittee shall restore and maintain the affected area with an approved ground cover, or shall accomplish such other erosion control protection measures as may be approved by the building official. Such erosion control shall be completed within thirty days after

cessation of the grading work or other work pursuant to a validly issued building permit.

4. **Maintenance of Protective Devices.** All devices used to protect hillside areas from erosion or landslide damage including, but not limited to, retaining walls, cribbing, terracing, surface and subsurface drainage structures, interceptor drains, check dams, and riprap shall be maintained in good condition and repair as approved by the building official at the time of completion of construction thereof.

SECTION IA-110. Appendix J Section J101.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J101.5 Protection of utilities. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 shall be responsible for the prevention of damage to any public utilities or services.

SECTION IA-111. Appendix J Section J101.6 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J101.6 Protection of adjacent property. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 is responsible for the prevention of damage to adjacent property and no person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, sidewalk, alley, or other public or private property without supporting and protecting such property from settling, cracking or other damage that might result. Special precautions approved by the building official shall be made to prevent imported

or exported materials from being deposited on the adjacent public way and/or drainage courses.

SECTION IA-112. Appendix J Section J101.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J101.7 Storm water control measures. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private property from damage by erosion, flooding, and deposition of mud, debris and construction-related pollutants originating from the site during, and after, grading and related construction activities. Furthermore, the owner and permittee shall be responsible for putting into effect and maintaining appropriate measures necessary to prevent any change in cross-lot surface drainage that may adversely affect any adjoining property as a result of grading and/or construction-related activities. Such measures to prevent any adverse cross-lot surface drainage effects on adjoining property shall be required whether shown on approved grading plans or not.

SECTION IA-113. Appendix J Section J101.8 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J101.8 Conditions of approval. In granting any permit under this code, the building official may include such conditions as may be reasonably necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

1. Improvement of any existing grading to comply with the standards of this code.

2. Requirements for fencing of excavations or fills which would otherwise be hazardous.

SECTION IA-114. Appendix J Section J101.9 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J101.9 Rules and regulations.

J101.9.1 Rules. The permissive provisions of this chapter shall not be presumed to waive any regulations imposed by other statutes or other ordinances of the State of California or the City of Glendale.

J101.9.2 Regulations. If two or more pertinent regulations are not identical, those regulations shall prevail which are more restrictive or which afford greater safety to life, limb, health, property or welfare. For the purposes of these regulations, grading permits shall be considered as building permits and shall be subject to the administrative provisions of this code, unless otherwise specifically provided for in this chapter.

SECTION IA-115. Appendix J Section J102 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

SECTION J102

DEFINITIONS

J102.1 Definitions. For the purposes of this appendix chapter, the terms, phrases and words listed in this section and their derivatives shall have the indicated meanings.

BENCH. A relatively level step excavated into earth material on which fill is to be placed.

BEST MANAGEMENT PRATICE (BMP). A stormwater pollution mitigation measure that is required to be employed in order to comply with the requirements of the

NPDES permit issued to the County of Los Angeles, and as that permit may be subsequently amended.

COMPACTION. The densification of a fill by mechanical means.

CUT. See Excavation.

DOWNDRAIN. A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility.

EROSION. The wearing away of the ground surface as a result of the movement of wind, water or ice.

EXCAVATION. The removal of earth material by artificial means, also referred to as a cut.

FILL. Deposition of earth materials by artificial means.

GRADE. The vertical location of the ground surface.

GRADE, EXISTING. The grade prior to grading.

GRADE, FINISHED. The grade of the site at the conclusion of all grading efforts.

GRADING. An excavation or fill or combination thereof.

KEY. A compacted fill placed in a trench excavated in earth material beneath the toe of a slope.

SLOPE. An inclined surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

SLOPE FAILURE means the slippage, instability, slide or loss of earth material from a slope for any reason. Class I slope failures involve bedrock. Class II slope failures involve soil above but not including bedrock. Class III slope failures involve only surficial problems with no involvement of bedrock.

STORM WATER POLLUTION PREVENTION PLAN. A site drawing with details, notes, and related documents that identify the measures proposed by the permittee to: (1) control erosion and prevent sediment and construction-related pollutants from being carried offsite by stormwater, and (2) prevent non-stormwater discharges from entering the storm drain system.

TERRACE. A relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

SECTION IA-116. Appendix J Section J103.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J103.1 Permits required. Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefore from the building official. A grading permit does not include the construction of retaining walls or other structures. A separate permit shall be obtained for each site and may cover both excavations and fills. Any engineered grading as described in Appendix J Section J104 shall be performed by a contractor licensed by the State of California to perform the work described hereon. Regular grading less than 5,000 cubic yards may require a licensed contractor if the building official determines that special conditions or hazards exist.

SECTION IA-117. Appendix J Section J103.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J103.2 Exemptions. A grading permit shall not be required for the following:

1. When approved by the building official, grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.

2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells, or trenches for utilities.
6. Mining, quarrying, excavating, processing or stockpiling rock, sand, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil and adjoining properties.
7. Exploratory excavations performed under the direction of a registered soils engineer or engineering geologist. This shall not exempt grading of access roads or pads created for exploratory excavations. Exploratory excavations must not create a hazardous condition to adjacent properties or the public in accordance with Section J101.3. Exploratory excavations must be restored to existing conditions, unless approved by the building official.
8. An excavation that does not exceed 50 cubic yards (38.3 m^3) and complies with one of the following conditions:
 - (1) is less than 2 feet (0.6 m) in depth.
 - (2) does not create a cut slope greater than 5 feet (1.5 m) measured vertically upward from the cut surface to the surface of the natural grade and is not steeper than 2 units horizontal to 1 unit vertical (50 percent slope).
9. A fill not intended to support a structure, that does not obstruct a drainage course and complies with one of the following conditions:

- (a) is less than 1 foot (0.3 m) in depth and is placed on natural terrain with a slope flatter than 5 units horizontal to 1 unit vertical (20 percent slope).
- (b) is less than 3 feet (0.9 m) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, does not exceed 50 cubic yards, and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50 percent slope).
- (c) is less than 5 feet (1.5 m) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, does not exceed 20 cubic yards, and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

EXCAVATIONS		FILLS	
		- NOT INTENDED TO SUPPORT STRUCTURES - DO NOT OBSTRUCT A DRAINAGE COURSE	
AN EXCAVATION WHICH IS LESS THAN 2 FT IN DEPTH AND DOES NOT EXCEED 50CY		FILL PLACED ON NATURAL GRADE NOT STEEPER THAN 5:1 AND LESS THAN 1FT DEEP	
AN EXCAVATION WHICH CREATES A CUT SLOPE NOT GREATER THAN 5FT IN HEIGHT, NOT STEEPER THAN 2:1, AND DOES NOT EXCEED 50CY		FILL LESS THAN 3FT DEEP AT ITS DEEPEST POINT THAT DOES NOT EXCEED 50CY	
		FILL LESS THAN 5FT DEEP AT ITS DEEPEST POINT THAT DOES NOT EXCEED 20CY	

FIGURE J103.2

SECTION IA-118. Appendix J Section J103.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J103.3 Unpermitted grading. A person shall not own, use, occupy or maintain any site containing unpermitted grading. For the purposes of this code, unpermitted grading shall be defined as the following

1. Grading that was performed, at any point in time, without the required permit(s) having first been obtained from the building official, pursuant to Section J103.1.
2. Grading that was permitted and the work was not completed pursuant to Section J105 and the grading permit has expired pursuant to Chapter 1 Division II Section 106.5.4.

SECTION IA-119. Appendix J Section J103.4 of Volume IA of the Glendale Building and Safety Code, 2011, regarding grading fees, is hereby added to read as follows:

J103.4 Grading fees.

1. Fees for grading plan check and for grading permits shall be established or modified by resolution of the city council. The schedule of such fees shall remain on file and be available in the office of the building official. The building official shall, with the approval of the city manager, recommend changes to the council when the costs to provide grading plan check and grading inspection services make it appropriate.
2. The applicant shall pay a plan check fee prior to acceptance of grading plans and specifications for checking by the city. The plan check fee shall be based on the volume of the excavation and fill. The grading plan check fee shall be recalculated

each time the grading plan volume of excavation and fill exceeds the volume used to determine the original plan check fee, and the applicant shall pay the difference between the revised and original fee before the revised grading plans are accepted for review by the city. The original grading plan check fee includes the cost to the applicant for the original submittal plus two additional submittals of corrected grading plans and specifications. When required by the building official, the applicant shall pay a supplemental grading plan check fee in accordance with the fee resolution established by the city council.

3. Whenever the applicant submits a grading plan for plan check that is substantially different in design of the earthwork as compared to previously submitted grading plans, the submittal shall be considered an original and a new grading plan check fee shall be determined and paid to the city as provided in this section.
4. The applicant shall pay a grading permit fee prior to the issuance of a grading permit by the city. The fee shall be based on the volume of excavation and fill, on the site. If, during grading operations, the plans and specifications for the grading project are revised increasing the volume of excavation, fill, or a combination thereof above the volume that was used to determine the grading permit fee, the applicant shall pay to the city the difference between the original grading permit fee and the recalculated fee before work may resume under the grading permit.
5. Whenever grading operations are commenced without an approved grading permit, a penalty shall be added to all unpaid fees for grading plan check and grading permits. The penalty shall be three hundred percent of all fees due the city.

SECTION IA-120. Appendix J Section J103.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J103.5 Bonds and insurance.

J103.5.1 Bonds – General.

1. Whenever an application for a grading permit is filed for the excavation or fill of one hundred cubic yards (76 m³) or more in hillside areas and five hundred cubic yards (382 m³) or more in other areas, the nature of the work regulated by this chapter is such that if left incomplete it will create a hazard to human life or endanger adjoining property, or property at a higher or lower level, or any street or street improvement or any other public property, the building official may, before issuing the grading permit, require the applicant to guarantee faithful performance and payment of labor and material in an amount determined by the building official, not less than fifty percent nor more than one hundred percent of the total estimated cost of work, including corrective work necessary to remove and eliminate geologic hazards by one of the methods provided by this section.
2. An additional cash deposit may be required by the building official in the form of a cash bond sufficient to cover the cost of site cleanup and debris removal if determined by the building official that it is warranted.
3. Where grading is required on property adjacent to the grading site under permit to complete a project satisfactorily, the owner of such adjacent property need not provide additional performance bond if the original is of sufficient amount to include such additional grading.

4. Each bond and agreement for grading shall be effective upon the date of filing of application and shall remain in effect until the work authorized by the grading permit is completed and approved by the building official.
5. Installment refunds. When a substantial portion of the required grading work has been completed to the satisfaction of the building official, and when the completion of the remaining grading work, site development or planting is delayed, the building official may accept the completed portion of the grading work and consent to the proportionate reduction of the bond to an amount estimated to be adequate to ensure completion of the grading work, site development or planting remaining to be performed. Only one such reduction shall be considered for each bond posted.

J103.5.2 Performance bonds.

1. A guarantee of faithful performance for grading and improvement projects, when required by this chapter, shall be provided by one of the following methods:
 - a. Surety bond. In the case the amount determined by the building official is in excess of \$10,000, a bond shall be executed by the applicant, as principal, and a corporate surety authorized to do business in the state of California, as surety, in a form furnished by the building official and approved by the city attorney;
 - b. Cash bond. A cash deposit with the city;
 - c. Instrument of credit and agreement. An instrument or instruments of credit from one or more financial institutions subject to regulation by the state or federal government pledging that the funds necessary to meet the

performance are on deposit and guaranteed for payment and an agreement that the funds designated by the instrument shall become trust funds for the purpose of and in an amount determined by the building official not less than fifty percent nor more than one hundred percent of the total estimated cost of the work, including corrective work necessary to remove and eliminate the agreement shall first be approved by the city attorney.

J103.5.3 Performance bond defaults.

- A. Whenever the building official shall find that a default has occurred in the performance of any term or condition of any grading or construction permit, written notice of the fact of default thereof shall be given to the principal and to the corporate surety, financial institution or the depositor, stating the work to be done, and the period of time deemed by the building official to be reasonably necessary for the completion of such work. Thirty days after the receipt of such notice the principal or the surety shall perform or cause the required work to be performed by commencing and diligently prosecuting such work to its completion; but if they or either or both of them should fail to commence such work within the thirty days or having so commenced such work fail, neglect or refuse to proceed diligently to complete the same within the time so specified in such notice, then the city may enter such premises and do such work and the cost and expense of so doing the work so specified shall be the obligation of the principal and such surety and shall be a part of the terms of the performance bond in consideration of the issuance of the grading permit.

- B. If a cash bond has been posted, notice of default shall be given to the principal, and if such principal fails to cause the required work to be resumed as set forth in such notice within thirty days after receipt thereof, the building official shall proceed without delay and further notice or proceedings whatsoever to use the cash deposited, or any portion thereof, and cause the required work to be completed by such mode as the building official deems convenient. The balance of such cash deposit, if any, shall upon the completion of the work be returned to the depositor or the depositor's successor or assigns after deducting ten percent thereof.
- C. If an instrument of credit is used to guarantee performance, notice of default shall be given to the principal and to the financial institution issuing such instrument of credit, and if such principal fails to cause the required work to be resumed as set forth in such notice within thirty days after receipt thereof, the building official shall make a demand upon the financial institution for the payment of the estimated costs from the trust fund held by such financial institution pursuant to the agreement. Upon receipt of such sum, the building official shall proceed without delay and without further notice or proceedings whatsoever to use such sum, or any portion thereof, and cause the required work to be completed by such mode as the building official deems convenient. The balance of such cash deposit, if any, shall upon the completion of the work be returned to the financial institution, its successors or assigns, after deducting ten percent thereof; but if such institution fails or refuses to pay over such sum then the building official shall look to such institution for the costs and expense of such work, and the

contractual liability of such institution shall be a term or condition of its agreement.

J103.5.4 Contractor's grading insurance – work done adjacent to public property.

Before issuing a grading permit for work being done adjacent to public property, the building official may require that the applicant, or his/her contractor, file a certificate and endorsement evidencing liability insurance satisfactory to the city attorney or risk manager. If required, such insurance shall provide coverage for damage to the city's property and for the city's liability and defense of claims for damages and suits for personal bodily injury and property damage, including but not limited to damage to the city arising out of the deposition, runoff or washing of materials, or any other damage to city property, which may arise from or out of the performance of the work, whether such performance be by such contractor, its subcontractors or any other person directly or indirectly employed by such contractor or subcontractors.

SECTION IA-121. Appendix J Section J104.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J104.2 Grading plan requirements. In addition to the provisions of Section 107, *Chapter I, Division II*, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

SECTION IA-122. Appendix J Section J104.2.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J104.2.1 Grading Designation. Grading in mountainous terrain, as identified in Section 16.08.270 of the Glendale Municipal Code, 1995, and all grading in excess of 5,000 cubic yards (3,825 m³) shall be performed in accordance with the approved grading plan prepared by a registered civil engineer, and shall be designated as “engineered grading.” Grading involving less than 5,000 cubic yards (3,825 m³) and not located in an area of mountainous terrain shall be designated as “regular grading” unless the permittee chooses to have the grading performed as engineered grading, or the building official determines that special conditions or unusual hazards exist, in which case grading shall conform to the requirements for engineered grading.

SECTION IA-123. Appendix J Section J104.2.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J104.2.2 Regular grading requirements. In addition to the provisions of Section 106, and Section 104.2, Chapter 1, Division II, an application for a regular grading permit shall be accompanied by two sets of plans in sufficient clarity to indicate the nature and extent of the work. The plans shall give the location of the work, the name of the owner, and the name of the person who prepared the plan. If the slope of the grade exceeds 3 units horizontal to 1 unit vertical or as required by the building official, the plans and specifications shall be prepared and signed by an individual licensed by the state to prepare such plans or specifications. The plan shall include the following information:

1. General vicinity of the proposed site.
2. Limits and depths of cut and fill.

3. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within 15 feet (4.6 m) of the proposed grading.
4. Contours, flow areas, elevations, or slopes which define existing and proposed drainage patterns.
5. Storm water provisions in accordance with the requirements of Appendix J Section J111.
6. Location of existing and proposed utilities, drainage facilities, and recorded public and private easements and use restricted use areas.
7. Location of all Special Flood Hazard Areas as designated and defined in Title 44, Code of Federal Regulations.

SECTION IA-124. Appendix J Section J104.2.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J104.2.3 Engineered grading requirements. In addition to the provisions of *Chapter I Division II*, Section 107 and Appendix J Section J104.2, an application for an engineered grading permit shall be accompanied by three sets of plans and specifications, and supporting data consisting of a soils engineering report and engineering geology report. The plans and specifications shall be prepared and signed by an individual licensed by the state to prepare such plans or specifications when required by the building official. Specifications shall contain information covering construction and material requirements. Plans shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and all relevant laws, ordinances, rules,

and regulations. The first sheet of each set of plans shall give location of the work, the name and address of the owner, and the person by whom they were prepared.

The plans shall include, but shall not be limited to, the following information:

1. General vicinity of the proposed site.
2. Property limits and accurate contours of existing ground and details of terrain and area drainage.
3. Limiting dimensions, elevations, or finish contours to be achieved by the grading, proposed drainage channels, and related construction.
4. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work. A map showing the drainage area and the estimated runoff of the area served by any drains shall also be provided.
5. Location of any existing or proposed buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners that are within 15 feet (4.6 m) of the property or that may be affected by the proposed grading operations.
6. Recommendations in the geotechnical engineering report and the engineering geology report shall be incorporated into the grading plans or specifications.

When approved by the building official, specific recommendations contained in the geotechnical engineering report and the engineering geology report, that are applicable to grading, may be included by reference.

7. The dates of the geotechnical engineering and engineering geology reports together with the names, addresses, and telephone numbers of the firms or individuals who prepared the reports.
8. A statement of the earthwork quantities of materials to be excavated and/or filled. Earthwork quantities shall include quantities for geotechnical and geological remediation. In addition, a statement of material to be imported or exported from the site.
9. A statement of the estimated starting and completion dates for work covered by the permit.
10. A statement signed by the owner acknowledging that a field engineer, geotechnical engineer and engineering geologist, when appropriate, will be employed to perform the services required by this code, whenever approval of the plans and issuance of the permit are to be based on the condition that such professional persons be so employed. These acknowledgements shall be on a form furnished by the building official.
11. Storm water provisions are required to be shown on the grading plan in accordance with Appendix J Section J111.
12. A drainage plan for that portion of a lot or parcel to be utilized as a building site (building pad), including elevation of floors with respect to finish site grade and locations of existing and proposed stoops, slabs, fences or other features that may affect drainage.
13. Location and type of any existing or proposed private sewage disposal system.

14. Location of existing and proposed utilities, drainage facilities, and recorded public and private easements.
15. Location of all recorded floodways.
16. Location of all Special Flood Hazard Areas as designated and defined in Title 44, Code of Federal Regulations.

SECTION IA-125. Appendix J Section J104.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J104.3 Geotechnical engineering and engineering geology report.

Geotechnical reports shall be required for all projects requiring a grading permit unless such report is determined unnecessary by the building official. Whenever a geotechnical report is required, the building official may require that such report be reviewed by a licensed professional and the cost associated with such review shall be required to be paid by the applicant.

The geotechnical engineering report required by Appendix J Section J104.2.3 shall include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fills, when necessary, and opinion on adequacy for the intended use of sites to be developed by the proposed grading as affected by geotechnical engineering factors, including the stability of slopes. All reports shall conform with the requirements of this code and shall be subject to review by the building official. Supplemental reports and data may be required as the building official may deem necessary. Recommendations included in the reports and approved by the building official shall be incorporated in the grading plan or

specifications. The engineering geology report required by Appendix J Section J104.2.3 shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors. The engineering geology report shall include a geologic map and cross sections utilizing the most recent grading plan as a base. All reports shall conform with the requirements of this code and shall be subject to review by the building official. Supplemental reports and data may be required as the building official may deem necessary. Recommendations included in the reports and approved by the building official shall be incorporated in the grading plan or specifications.

Exception: A geotechnical engineering or engineering geology report is not required where the building official determines that the nature of the work applied for is such that a report is not necessary.

SECTION IA-126. Appendix J Section J104.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J104.4 Liquefaction study. For sites with mapped maximum considered earthquake spectral response accelerations at short periods (S_s) greater than 0.5g as determined by Section 1613, a study of the liquefaction potential of the site shall be provided, and the recommendations incorporated in the plans. A geotechnical investigation will be required when the proposed work is a "Project" as defined in California Public Resources Code Section 2693, and is located in an area designated as a "Seismic Hazard Zone" as

defined in California Code of Regulations Section 3722 on Seismic Hazard Zone Maps issued by the State Geologist under Public Resources Code Section 2696.

Exception:

1. A liquefaction study is not required where the building official determines from established local data that the liquefaction potential is low.
2. *[OSHPD 1,2 and 4] Exception 1 not permitted by OSHPD.*

SECTION IA-127. Appendix J Section J104.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J104.5 Slope failure reports. In addition to any other requirements set forth in this Appendix J, for Class I slope failures, the permit applicant shall submit to the building official a combined geotechnical engineering and engineering geology report to address its cause and provide recommended repair methods. For Class II slope failures, the permit applicant shall submit to the building official an engineering geology report to address its cause and provide recommended repair methods. For Class III slope failure, unless there exist other conditions which, in the opinion of the building official, require the submission of geotechnical engineering or engineering geology reports, the permit applicant shall not be required to submit such reports.

SECTION IA-128. Appendix J Section J104.6 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J104.6 Permit issuance.

1. The issuance of a grading permit shall constitute an authorization to do only that work which is described or illustrated on the application for the permit or on the

grading plans and specifications approved by the building official at the time of issuance.

2. Jurisdiction of other agencies. Permits issued under the requirements of this chapter shall not relieve the owner of responsibility for securing required permits for work to be accomplished which is regulated by any other code, department or division of the governing agency.
3. Tract map requirements. No grading permit shall be issued for import or export of earth materials to or from, and no grading shall be conducted on, any unimproved acreage in hillside areas unless a tentative tract map has been approved by the council or a parcel map has been approved by the planning commission or an affidavit is filed declaring the grading shall not be for subdivision purposes.
4. Conditions of permit. The building official, upon recommendation of the city traffic and transportation administrator, may impose such regulations with respect to access routes to and from grading sites in hillside areas as the building official shall determine are required in the interest of safety precautions involving pedestrian or vehicular traffic.
5. No permit shall be issued for the export or import of earth materials to or from a grading site in hillside areas involving ingress or egress on streets having less than 30 feet (9 m) in usable width, except upon all of the following conditions:
 - a. The size or type of hauling equipment shall be limited in accordance with the width and conditions of the street;

- b. Traffic-control devices, including flag officers, signs and markers shall be utilized at appropriate places along the designated routes of access to such sites;
- c. Temporary no-parking restrictions shall be imposed with the approval of the city traffic and transportation administrator along such routes when determined necessary;
- d. No person shall excavate or fill so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties or public ways;
- e. In granting a permit under this chapter, the building official shall attach such conditions as may be necessary to prevent creation of hazard to public or private property;
- f. In no event shall any export or import of earth materials to or from a grading site over dedicated and improved streets in hillside areas be undertaken or conducted except by use of equipment which complies in all respects with the state Vehicle Code;
- g. All vehicle loads shall be trimmed and watered, or otherwise secured so as to prevent spillage from the equipment;
- h. In cases where the building official designates the haul routes, such designation of routes shall take into consideration the most practical means of transporting the earth materials to or from the grading site consistent with the safety and welfare of residents along the routes; and
- i. All public roadways used by the permittee shall be maintained free from all dust, dirt and debris caused by permittee's grading operation.

6. Consent of adjacent property owner. Whenever any excavation or fill requires entry onto adjacent property for any reason, the permit applicant shall obtain the written consent or legal easements or other property rights of the adjacent property owner or their authorized representative, and shall file a signed and duly notarized copy of such consent with the building official, and no permit for such grading work may be issued unless and until all necessary consent documents are so filed. The consent shall be in a form acceptable to the building official.

SECTION IA-129. Appendix J Section J105.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.3 Field engineer. The field engineer shall provide inspection within such engineer's area of technical specialty, oversee and coordinate all field surveys, set grade stakes, and provide site inspections during grading operations to ensure the site is graded in accordance with the approved grading plan and the appropriate requirements of this code. During site grading, and at the completion of both rough grading and final grading, the field engineer shall submit statements and reports required by Appendix J Sections J105.11 and J105.12. If revised grading plans are required during the course of the work, they shall be prepared by a civil engineer and approved by the building official.

SECTION IA-130. Appendix J Section J105.4 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.4 Geotechnical engineer. The geotechnical engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The geotechnical engineer shall provide sufficient observation during the preparation of the natural ground

and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this code. Revised recommendations related to conditions differing from the approved geotechnical engineering and engineering geology reports shall be submitted to the permittee, the building official and the field engineer.

SECTION IA-131. Appendix J Section J105.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.5 Engineering geologist. The engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the geotechnical engineer.

SECTION IA-132. Appendix J Section J105.6 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.6 Permittee. The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this code, and the permittee shall engage project consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the project consultants, the contractor and the building official. In the event of changed conditions, the permittee shall be responsible for informing the building official of such change and shall provide revised plans for approval.

SECTION IA-133. Appendix J Section J105.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.7 Building official. The building official shall inspect the project site at the following various stages of work, as the building official deems necessary, to determine that adequate control is being exercised by the project consultants:

Pre-grade. Before any construction or grading activities occur at the site. Permittee shall schedule a pre-grade inspection with the building official. The permittee is responsible for coordinating that all project consultants are present at the pre-grade inspection.

Initial. When the site has been cleared of vegetation and unapproved fill and it has been scarified, benched or otherwise prepared for fill. No fill shall have been placed prior to this inspection.

Rough. When approximate initial elevations have been established; drainage terraces, swales and other drainage devices necessary for the protection of the building site(s) from flooding are installed; berms are installed at the top of the slopes; and the statements required by Section J105.12 have been received.

Final. When grading has been completed; all drainage devices necessary to drain the building pad(s) are installed; slope planting is established; irrigation systems are installed; and the as-built plans and required statements and reports have been submitted.

SECTION IA-134. Appendix J Section J105.8 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.8 Notification of noncompliance. If, in the course of fulfilling their respective duties under this chapter, the field engineer, the geotechnical engineer or the engineering

geologist finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies and corrective measures which should be taken shall be reported immediately in writing to the permittee and the building official.

SECTION IA-135. Appendix J Section J105.9 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.9 Transfer of responsibility. If the field engineer, the geotechnical engineer or the engineering geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competency for approval upon completion of the work. It shall be the duty of the permittee to notify the building official in writing of such change prior to the recommencement of such grading.

SECTION IA-136. Appendix J Section J105.10 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.10 Non-inspected grading. No person shall own, use, occupy or maintain any non-inspected grading. For the purposes of this code, non-inspected grading shall be defined as any grading for which a grading permit was first obtained, pursuant to Appendix J Section J103, but which has progressed beyond any point requiring inspection and approval by the building official without such inspection and approval having been obtained.

SECTION IA-137. Appendix J Section J105.11 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.11 Routine field inspections and reports. Unless waived by the building official, routine inspection reports shall be provided by the field engineer for all engineered

grading projects. The field engineer shall file these reports with the building official as follows:

1. Bi-weekly during all times when grading of 400 cubic yards or more per week is occurring on the site;
2. Monthly, at all other time; and
3. At any time when requested in writing by the building official.

Such reports shall certify to the building official that the field engineer has inspected the grading site and related activities and has found them in compliance with the approved grading plans, the building code, grading permit conditions, and other applicable ordinances and requirements. The reports shall contain all required information in a standard "Report of Grading Activities" form which shall be provided by the building official.

SECTION IA-138. Appendix J Section J105.12 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.12 Completion of work. Upon completion of the rough grading work and at the final completion of the work, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is required by the building official:

1. An "as-built" grading plan prepared by the field engineer to provide such services in accordance with Appendix J Section J105.3 showing all plan revisions as approved by the building official. This shall include original ground surface elevations, as-built ground elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities and the outlets of subsurface drains. As-

built locations, elevations and details of subsurface drains shall be shown as reported by the geotechnical engineer. The field engineer shall state in a report, to the building official that to the best of their knowledge, the work within the area of responsibility was done in accordance with the final approved grading plan.

2. A report prepared by the geotechnical engineer retained to provide such services in accordance with Appendix J Section J105.5, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved geotechnical engineering investigation report. Geotechnical engineer shall submit a statement that, to the best of their knowledge, the work within their area of responsibility is in accordance with the approved geotechnical engineering report and applicable provisions of this chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures against hazard from landslide, settlement or slippage.
3. A report prepared by the engineering geologist retained to provide such services in accordance with Appendix J Section J105.6, including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. Engineering geologists shall submit a statement that, to the best of their knowledge, the work within their area of responsibility is in accordance with the approved engineering geologist report and applicable provisions of this chapter. The report shall contain a finding regarding the safety of the completed grading

and any proposed structures against hazard from landslide, settlement, or slippage. The report must contain a final as-built geologic map and cross-sections depicting all the information collected prior to and during grading.

4. The grading contractor shall submit in a form prescribed by the building official a statement of conformance to said as-built plan and the specifications.

SECTION IA-139. Appendix J Section J105.13 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.13 Notification of completion. The permittee shall notify the building official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion control measures have been completed in accordance with the final approved grading plan, and the required reports have been submitted and approved.

SECTION IA-140. Appendix J Section J105.14 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J105.14 Change of ownership. Unless waived by the building official, when a grading permit has been issued on a site and the owner sells the property prior to final grading approval, the new property owner shall be required to obtain a new grading permit.

SECTION IA-141. Appendix J Section J106.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J106.1 Maximum cut slope. The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 2 units horizontal to 1 unit vertical (50-percent slope) unless the applicant furnishes a geotechnical engineering or an engineering geology report, or both justifying a steeper slope. Reports must indicate that site was

investigated and give an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property in conformance with the requirements of Appendix J Section J104.2.3. The building official may require the excavation to be made with a cut face flatter in slope than 2 units horizontal to 1 unit vertical if the building official finds it necessary for stability and safety.

Exceptions:

1. A cut surface may be at a slope of 1.5 units horizontal to ~~one~~ 1 unit vertical (67 percent slope) provided that all the following are met:
 - 1.1 It is not intended to support structures or surcharges.
 - 1.2 It is adequately protected against erosion.
 - 1.3 It is no more than 8 feet (2438 mm) in height.
 - 1.4 It is approved by the building code official
 - 1.5 Ground water is not encountered.
2. A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100 percent slope).

SECTION IA-142. Appendix J Section J106.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J106.3 Drainage. Drainage, including drainage terraces and overflow protection, shall be provided as required by Appendix J Section J109.

SECTION IA-143. Appendix J Section J107.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J107.1 General. Unless otherwise recommended in the geotechnical report, fills shall comply with the provisions of this section. In the absence of an approved geotechnical

engineering report and if approved by the building official, these provisions may be waived for minor fills not intended to support structures.

SECTION IA-144. Appendix J Section J107.2 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J107.2 Surface preparation. Fill slopes shall not be constructed on natural slopes steeper than 2 units horizontal to 1 unit vertical (50 percent slope). The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material. Except where recommended by the geotechnical engineer of engineering geologist as not being necessary, subdrains shall be provided under all fills placed in natural drainage courses and in other locations where seepage is evident. Such sub-drainage systems shall be of a material and design approved by the geotechnical engineer and acceptable to the building official. The geotechnical engineer shall provide continuous inspection during the process of subdrain installations. The location of the subdrains shall be shown on a plan by the geotechnical engineer. Excavations for the subdrains shall be inspected by the engineering geologist when such subdrains are included in the recommendations of the engineering geologist.

SECTION IA-145. Appendix J Section J107.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J107.3 Benching. Where existing grade is at a slope steeper than 5 units horizontal to 1 unit vertical (20 percent slope) and the depth of the fill exceeds 5 feet (1524 mm) benching shall be provided into sound bedrock or other competent material as determined by the geotechnical engineer. The ground preparation shall be in accordance with Figure

J107.3 or as determined by the geotechnical engineer. When fill is to be placed over a cut, a key shall be provided which is at least 10 feet (3048 mm) in width and 2 feet (610 mm) in depth. The area beyond the toe of fill shall be sloped for sheet flow or a paved drain shall be provided. The cut shall be made before placing the fill and the geotechnical engineer or engineering geologist or both shall accept the cut as suitable for the foundation and placement of fill material.

SECTION IA-146. Appendix J Section J107.6 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J107.6 Maximum slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 2 units horizontal to 1 unit vertical (50 percent slope) shall be justified by geotechnical engineering reports conforming with the requirements of Appendix J Section J104.2.3, stating that the site has been investigated and giving an opinion that a fill at a steeper slope will be stable and not create a hazard to public or private property. Substantiating calculations and supporting data may be required where the building official determines that such information is necessary to verify the stability and safety of the proposed slope. The building official may require the fill slope be constructed with a face flatter in slope than 2 units horizontal to 1 unit vertical (50 percent slope) if the building official finds it necessary for stability and safety.

SECTION IA-147. Appendix J Section J107.7 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J107.7 Slopes to receive fill. Where fill is to be placed above the top of an existing slope steeper than 3 units horizontal to 1 unit vertical (33 percent slope), the toe of the fill

shall be set back from the top edge of the slope a minimum distance of 6 feet (1.8 m) measured horizontally or such other distance as may be specifically recommended by a geotechnical engineer or engineering geologist and approved by the building official.

SECTION IA-148. Appendix J Section J107.8 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J107.8 Inspection of fill. For engineered grading, the geotechnical engineer shall provide sufficient inspections during the preparation of the natural ground and the placement and compaction of the fill ensuring that the work is being performed in accordance with the conditions of plan approval and the appropriate requirements of this chapter. In addition to the above, the geotechnical engineer shall be present during the entire fill placement and compaction of fills that will exceed a vertical height or depth of 30 feet (9.1 m) or result in a slope surface steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

SECTION IA-149. Appendix J Section J107.9 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J107.9 Testing of fills. Sufficient tests of the fill soils shall be made to determine the density and to verify compliance of the soil properties with the design requirements. This includes soil types and shear strengths in accordance with Referenced Standards Section J112.

SECTION IA-150. Appendix J Section J108 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

SECTION J108

SETBACKS AND RETAINING WALLS

J108.1 General. Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks and is recommended by a geotechnical engineering and engineering geology report approved by the building official.

J108.2 Top of slope. The setback at the top of a cut slope shall not be less than that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater. For graded slopes the grading design must be such that the property line between adjacent lots will be at the apex of the berm at the top of the slope. Property lines between adjacent lots shall not be located on a graded slope steeper than 5 units horizontal to 1 unit vertical (20 percent slope).

J108.3 Slope protection. Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the building official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.
2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

J108.4 Alternate setbacks. The building official may approve alternate setbacks. The building official may require an investigation and recommendation by a qualified geotechnical engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.

J108.5 Retaining walls and crib walls.

1. All structures which are intended to retain earth material, shall be fully detailed, appropriately engineered, and where required by the building official be incorporated into a grading plan. Such grading plan shall be reviewed by the building official, or his or her designee, and must be approved prior to issuance of a building permit for any retaining walls on the site.
2. When required by the building official, grading permit applicants shall have grading plans prepared and reviewed by a qualified geologist, or a geotechnical engineer, or a combination thereof. All features of the grading plan must be included in such review, and a recommendation shall be submitted by such qualified individual regarding the type of retaining wall system(s) to be used. Any recommendation to utilize a particular type of earth retention system shall be based on soil strength parameters for the subject property and detailed slope stability analysis.
3. Cantilever retaining walls must be designed to provide a minimum factor of safety against overturning of 1.5 and a minimum factor of safety against sliding of 1.5. The building official shall have the authority to require a higher factor of safety against overturning or sliding, or both if he or she determines that specific site conditions warrant such design.
4. When approved for use by the building official, a crib wall earth retention system may be used. Such system must be specifically recommended, as an appropriate method of retaining a cut or fill slope, by the geotechnical engineer of record for the project.

5. Any crib wall earth retention system which is approved for use by the building official, must meet the following minimum design parameters:
- a. The crib wall system shall be designed with a minimum factor of safety against overturning of 3.0. A higher factor of safety may be required, at the discretion of the building official.
 - b. The crib wall system shall be designed with a minimum factor of safety against sliding of 3.0. A higher factor of safety may be required, at the discretion of the building official.
 - c. Unless an alternate height is approved by the building official, the maximum height of a crib wall shall not exceed ten feet (3 m), measured from the bottom of the lowest course.
 - d. Crib walls in excess of ten feet (3 m) in height must be designed with closed cell faces, and may not be vegetated.
 - e. Backfill of crib walls shall consist of granular material, which facilitates drainage, as recommended by the geotechnical engineer of record.
 - f. A subdrain shall be required behind all retaining walls, unless the full effect of hydrostatic pressure is accounted for in the design, and omission of such subdrain is recommended by the geotechnical engineer of record for the project, and approved by the building official.
 - g. Crib walls shall be founded upon a foundation/grade beam system that is designed by a licensed civil or structural engineer or upon competent bedrock as determined by both a qualified geotechnical engineer and engineering geologist and approved by the building official. All

foundation grade beam systems shall be reviewed and approved by the geotechnical engineer of record for the project.

- h. Crib walls shall be designed to resist all seismically induced lateral forces, in addition to the lateral forces imparted by retained earth material.
- 6. Earth retention systems, other than cantilevered retaining wall systems, which are not anchored into a stable, earthen mass may not be utilized.
- 7. Revetments and erosion control armaments shall not be considered suitable for retaining cut or fill slopes.
- 8. All retaining walls must be approved by the building official prior to construction, except for walls specifically exempt from the Glendale Building and Safety Code, 2011, as amended.
- 9. Any earth retaining structure, which creates a reasonably accessible surface, which adjoins a vertical drop of thirty inches (750 mm) or more, shall be provided with a protective guard, in accordance with the Glendale Building and Safety Code, 2011, as amended.
- 10. All retaining walls shall be provided with sufficient freeboard and a surface back drain, to effectively retain and divert ravel, debris, and concentrated storm water runoff.

SECTION IA-151. Appendix J Section J109.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J109.1 General. Unless otherwise recommended by a civil engineer, and approved by the building official, drainage facilities and terracing shall be provided in accordance

with the requirements of this section for all cut and fill slopes where the ground slope is steeper than 3 units horizontal to 1 unit vertical (33 percent slope).

For slopes flatter than 3 units horizontal to 1 unit vertical (33 percent slope) and steeper than 5 units horizontal to 1 unit vertical (20 percent slope) a paved swale or ditch shall be provided at 30 foot (9.1 m) vertical intervals to control surface drainage and debris. Swale shall be sized based on contributory area and have adequate capacity to convey intercepted waters to the point of disposal as defined in Appendix J Section 109.5. Swale must be paved with reinforced concrete not less than 3 inches (0.08 m) in thickness, reinforced with 6-inch (0.2 m) by 6-inch (0.2 m) No. 10 by No. 10 welded wire fabric or equivalent reinforcing centered in the concrete slab or an approved equal. Swale must have a minimum flow line depth of 1 foot (0.3 m) and a minimum paved width of 18 inches (0.5 m). Swales shall have a minimum gradient of not less than 5 percent. There shall be no reduction in grade along the direction of flow unless the velocity of flow is such that slope debris will remain in suspension on the reduced grade.

SECTION IA-152. Appendix J Section J109.3 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J109.3 Interceptor drains and overflow protection. Berms, interceptor drains, swales or other devices shall be provided at the top of cut or fill slopes to prevent surface waters from overflowing onto and damaging the face of a slope. Berms used for slope protection shall not be less than 12 inches (0.3 m) above the level of the pad and shall slope back at least 4 feet (1.2 m) from the top of the slope. Interceptor drains shall be installed along the top of graded slopes greater than 5 feet (1.5 m) in height receiving drainage from a tributary width greater than 30 feet (9.1 m) measured horizontally. They

shall have a minimum depth of 1 foot (305 mm) and a minimum width of 3 feet (915 mm). The slope shall be approved by the building official, but shall not be less than 50 horizontal to 1 vertical (2 percent slope). The drain shall be paved with concrete not less than 3 inches (76 mm) in thickness, or by other materials suitable to the application. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the building official.

SECTION IA-153. Appendix J Section J109.5 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

J109.5 Disposal. All drainage facilities shall be designed to carry waters to the nearest practicable street, storm drain, or natural watercourse drainage way approved by the building official or other appropriate governmental agency jurisdiction provided it is a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices. Desilting basins, filter barriers or other methods, as approved by the building official, shall be utilized to remove sediments from surface waters before such waters are allowed to enter streets, storm drains, or natural watercourses. If the drainage device discharges onto natural ground, riprap or a similar energy dissipater may be required. Building pads shall have a minimum drainage gradient of 2 percent toward approved drainage facilities, a public street or drainage structure approved to receive storm waters unless waived by the building official. A lesser slope may be approved by the building official for sites graded in relatively flat terrain, or where special drainage provisions are made, when the building official finds such modification will not result in unfavorable drainage conditions.

SECTION IA-154. Appendix J Section J110.1 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

J110.1 General. The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall consist of effective planting, erosion control blankets, soil stabilizers or other means as approved by the building official.

Exception: Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials.

Erosion control for the slopes shall be installed as soon as practicable and prior to calling for final inspection.

SECTION IA-155. Appendix J Section J111 of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended and renumbered as new Section J112 to read as follows:

SECTION J112

REFERENCED STANDARDS

ASTM D 1557-e01	Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort [56,000 ft-lb/ft ³ (2,700kN-m/m ³)].
ASTM D 1556	Density and Unit Weight of Soils in Place by the Sand Cone Method
ASTM D 2167	Density and Unit Weight of Soils in Place by the Rubber-Balloon Method
ASTM D 2937	Density of Soils in Place by the Drive-Cylinder Method
ASTM D 2922	Density of Soil and Soil Aggregate in Place by Nuclear Methods

ASTM D 3017

Water Content of Soil and Rock in Place by Nuclear
Methods

SECTION IA-156. Appendix J Section J111 of Volume IA of the Glendale
Building and Safety Code, 2011, is hereby added to read as follows:

SECTION J111

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

COMPLIANCE

J111.1 General. All grading plans and permits shall comply with the provisions of this section for NPDES compliance including the owner of any property on which grading has been performed and which requires a grading permit under Appendix J Section J103. Sites which have been graded and which require a grading permit under Appendix J Section J103 are subject to penalties and fines per Appendix J Section J111.4. All best management practices shall be installed before grading begins or as instructed in writing by the building official for unpermitted grading as defined by Section J103.3. As grading progresses, all best management practices shall be updated as necessary to prevent erosion and control construction related pollutants from discharging from the site. All best management practices shall be maintained in good working order to the satisfaction of the building official unless final grading approval has been granted by the building official and all permanent drainage and erosion control systems, if required, are in place.

J111.2 Storm water pollution prevention plan (SWPPP). When requested by the building official, no grading permit shall be issued unless the plans for such work include a Storm Water Pollution Prevention Plan with details of best management practices, including desilting basins or other temporary drainage or control measures, or both, as

may be necessary to control construction-related pollutants which originate from the site as a result of construction related activities. For unpermitted grading as defined by Section J103.3 upon written request a SWPPP in compliance with the provisions of this section and Section 106.4.3 for NPDES compliance shall be submitted to the building official.

J111.3 Wet weather erosion control plans (WWECP). In addition to the SWPPP required in Appendix J Section J111.2, where a grading permit is issued and it appears that the grading will not be completed prior to November 1, then on or before October 1 the owner of the site on which the grading is being performed shall file or cause to be filed with the building official a WWECP which includes specific best management practices to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding or the deposition of mud, debris or construction related pollutants. The best management practices shown on the WWECP shall be installed on or before October 15. The plans shall be revised annually or as required by the building official to reflect the current site conditions. The WWECP shall be accompanied by an application for plan checking services and plan check fees equal in amount to 10 percent of the original grading permit fee.

J111.4 Storm water pollution prevention plan, effect of noncompliance. Should the owner fail to install the best management practices required by Appendix J Sections J111.2 and J111.3 or submit the wet weather erosion control plans required by Appendix J Section J111.3 by the dates specified therein, it shall be deemed that a default has occurred under the conditions of the grading permit security. There upon, the building official may enter the property for the purpose of installing, by city forces or by other

means, the drainage, erosion control and other devices shown on the approved plans, or if there are no approved plans, as the building official may deem necessary to protect adjoining property from the effects of erosion, flooding, or the deposition of mud, debris or construction related pollutants. The building official may also cause the owner to be prosecuted as a violator of this code. The building official shall have the authority to collect the penalties imposed by this code upon determining that the site is in noncompliance. Payment of penalty shall not relieve any persons from fully complying with the requirements of this code in the execution of the work. The following penalties may be imposed by the building official:

1. If a designed wet weather erosion control plan is not submitted as prescribed in Appendix J Section J111.3:

Grading Permit Volume	Penalty
1 – 10,000 cubic yards (1 – 7645.5 m ³)	\$ 50.00 per day
10,001 – 100,000 cubic yards (7646.3 – 76455 m ³)	\$250.00 per day
More than 100,000 cubic yards (76455 m ³)	\$500.00 per day

2. If the best management practices for storm water pollution prevention and wet weather erosion control are not installed as prescribed in Appendix J Sections J111.2 and J111.3 and approved by the building official:

Grading Permit Volume	Penalty
1 – 10,000 cubic yards (1 – 7645.5 m ³)	\$ 100.00 per day
10,001 – 100,000 cubic yards (7646.3 – 76455 m ³)	\$250.00 per day
More than 100,000 cubic yards (76455 m ³)	\$500.00 per day

VOLUME IB. RESIDENTIAL STANDARDS

SECTION IB-1. Volume IB of the Glendale Building and Safety Code, 2011, is amended as hereinafter provided.

SECTION IB-2. Chapter 1 Division II of the Section R104.10.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R104.10.2 Fire code official concurrence. For those cases which may affect fire or life safety, the building official shall obtain the concurrence of the fire code official.

SECTION IB-3. Chapter 1 Division II Section R104.11.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R104.11.2 Fire code official concurrence. For those cases which may affect fire or life safety, the building official shall obtain the concurrence of the fire code official.

SECTION IB-4. Chapter 1 Division II Section R105.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R105.2 Work exempt from permit. *Permits* shall not be required for the following. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*.

Building:

1. One-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15 m²).

2. Fences, pilasters, free-standing and retaining walls not over 18 inches (457 mm) in height measured from the lowest adjacent grade to the top of the wall, fence or pilaster, unless supporting a surcharge.
3. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
4. Sidewalks and driveways.
5. Painting, papering, tiling, carpeting, cabinets, counter stops and similar finish work.
6. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
7. Swings and other playground equipment.
8. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
9. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a *dwelling* and do not serve the exit door required by Section R311.4.
10. Temporary frames (also known as "story poles") which are intended to temporarily show the outlines of proposed buildings as required by Title 30 the Glendale Municipal Code, 1995 for a period not to exceed 1-year.

Electrical:

1. *Listed* cord-and-plug connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the

S:\20

same location.

4. Electrical wiring, devices, *appliances*, apparatus or *equipment* operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
5. Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical *equipment* to *approved* permanently installed receptacles.

Gas:

1. Portable heating, cooking or clothes drying *appliances*.
2. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
3. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

Mechanical:

1. Portable heating *appliances*.
2. Portable ventilation *appliances*.
3. Portable cooling units.
4. Steam, hot- or chilled-water piping within any heating or cooling *equipment* regulated by this code.
5. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
6. Portable evaporative coolers.
7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of

refrigerant or that are actuated by motors of 1 horsepower (746 W) or less.

8. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.

The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

R105.2.1 Emergency repairs. Where *equipment* replacements and repairs must be performed in an emergency situation, the *permit* application shall be submitted within the next working business day to the *building official*.

R105.2.2 Repairs. Application or notice to the *building official* is not required for ordinary repairs to structures, replacement of lamps or the connection of *approved* portable electrical *equipment* to *approved* permanently installed receptacles. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include *addition* to, *alteration* of, replacement or relocation of any water supply, sewer, drainage, drain

leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

R105.2.3 Public service agencies. A *permit* shall not be required for the installation, alteration or repair of generation, transmission, distribution, metering or other related *equipment* that is under the ownership and control of public service agencies by established right.

SECTION IB-5. Chapter 1 Division II Section R105.3 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R105.3 Application for permit. To obtain a permit, the applicant shall first file an application therefor in writing on a form furnished by the department of building safety for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended.
4. Be accompanied by construction documents and other information as required in Section R106.1.
5. State the valuation of the proposed work.
6. Be signed by the applicant or the applicant's authorized agent.
7. Give such other data and information as required by the building official.

8. Pay plan review and permit fees as required by Volume 1A Chapter 1 Division II of this Code.

SECTION IB-6. Chapter 1 Division II Section R105.3.1.1 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R105.3.1.1 Determination of substantially improved or substantially damaged existing buildings in flood hazard areas. For applications for reconstruction, rehabilitation, addition or other improvement of existing buildings or structures located in an area prone to flooding as established by Table R301.2(1), the building official shall examine or cause to be examined the construction documents and shall prepare a finding with regard to the valuation of the proposed work. For buildings that have sustained damage of any origin, the valuation of the proposed work shall include the cost to repair the building or structure to its predamaged condition. If the building official finds that the valuation of proposed work equals or exceeds 50 percent of the market value of the building or structure before the damage has occurred or the improvement is started, the finding shall be provided to the board of appeals for a determination of substantial improvement or substantial damage. Applications determined by the board of appeals to constitute substantial improvement or substantial damage shall require all existing portions of the entire building or structure to meet the requirements of Section R322.

SECTION IB-7. Chapter 1 Division II Section R105.3.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned one-year after the date of filing unless such application has been pursued in good faith or a permit has been issued; except that the

building official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Exception: Such application was extended by Ordinance No. 5681 through December 31, 2011.

In granting any extension the building official may require compliance with any new regulation. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee. The new plan review fee shall be one half the amount required for a new plan review, provided no changes have been made in the original plans and specifications for such work, and provided further that such abandonment has not exceeded one year. In order to renew action on an expired application the applicant shall comply with all applicable new regulations.

SECTION IB-8. Chapter 1 Division II of the Section R105.3.3 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R105.3.3 Plan review fees. When submittal documents are required by Chapter I Division II, Section R105.3, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. The plan review fees specified in this section are separate fees from the permit fees specified in Chapter 1 Division II, Section R108.2 and are in addition to the permit fees. When submittal documents are incomplete or changed so as to require additional plan review, or when the project involves deferred submittal items as defined in Chapter 1 Division II, Section 106.3.4, an additional plan review fee shall be charged at a rate specified by resolution.

SECTION IB-9. Chapter 1 Division II Section R105.5 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R105.5. Expiration. Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Work shall be considered suspended or abandoned if the building official determines that substantial work has not been performed within the time specified above. Substantial work shall be construed to mean:

1. Measurable work such as, but not limited to, the addition of footings, structural members, flooring, wall covering, etc.
2. The work mentioned in subsection 1 of this section 105.5 above must constitute 20% of the value of the work for which the permit was issued in any 180 day period for Group R, Division 3 occupancies.

Before such work can be recommenced, a new permit shall be first obtained to do so, and the fee therefore shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after expiration, the permittee shall pay a new permit fee and may be required to comply with all applicable new regulations at the time of issuance. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

SECTION IB-10. Chapter 1 Division II Section R105.8 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R105.8 Responsibility of permittee. Building permits shall be presumed to incorporate the provision that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all requirements of this code and any other laws or regulations applicable thereto, whether specified or not. No approval shall relieve or exonerate any person from the responsibility of complying with the provisions and intent of this code.

SECTION IB-11. Chapter 1 Division II of the Section R106.3.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R106.3.4 Deferred submittals. For the purposes of this section, deferred submittals are defined as those portions of the design that are not submitted at the time of the application and that are to be submitted to the *building official* within a specified period. Deferral of any submittal items shall have the prior approval of the *building official*. The *registered design professional in responsible charge* shall list the deferred submittals on the *construction documents* for review by the *building official*. Documents for deferred submittal items shall be submitted to the *registered design professional in responsible charge* who shall review them and forward them to the *building official* with a notation indicating that the deferred submittal documents have been reviewed and been found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the deferred submittal documents have been *approved by the building official*.

SECTION IB-12. Chapter 1 Division II Section R108.6 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R108.6 Work commencing before permit issuance. Any person who commences work requiring a *permit* on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to a fee in-addition to the normally established permit fee, equal to 100% of such normally established permit fee, or as otherwise determined by the building official.

SECTION IB-13. Chapter 1 Division II Section R109.1.5.3 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

109.1.5.3 Structural observation. For structural observation, see Section 1707 of Volume IA.

SECTION IB-14. Chapter 1 Division II Section R109.1.5.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

109.1.5.4 Sound transmission control. Fire-resistance-rated construction inspection. Where fire-resistance-rated construction is required between dwelling units or due to location on property, the building official shall require an inspection of such construction after all lathing and/or wallboard is in place, but before any plaster is applied, or before wall-board joints and fasteners are taped and finished. Protection of joints and penetrations in fire resistance rated assemblies shall not be concealed from view until inspected and approved.

SECTION IB-15. Chapter 1 Division II Section R112 and all subsections thereof of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

SECTION R112

BUILDING AND FIRE BOARD OF APPEALS

R112.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the *building official* or the fire code official relative to the application and interpretation of all volumes of this code, there shall be and is hereby created a joint building and fire board of appeals in accordance with Section 113 of Volume IA of this Code (hereinafter referred to as the "board").

SECTION IB-16. Chapter 1 Division II Section R113.1 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R113.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish, occupy, or maintain any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code. Maintenance of a building or structure which was unlawful at the time it was constructed and which would be unlawful under this Code if constructed after the effective date of such Code, shall constitute a continuing violation of such Code.

SECTION IB-17. Chapter 1 Division II Section R113.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R113.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the *approved construction documents* or directive of the *building official*, or of a *permit* or certificate issued under the provisions of this code, shall be deemed guilty of a misdemeanor and shall be punishable by a fine of not more than \$1,000 or by imprisonment of not more than 6 months, or by both such fine and imprisonment. Such penalty and imprisonment shall not preclude the imposition of any other administrative or judicial civil, or criminal remedies under state, federal or local laws.

SECTION IB-18. Chapter 1 Division II Section R114.1 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R114.1 Notice to owner. Upon notice from the *building official* that work on any building or structure is being prosecuted contrary to the provisions of this code or other laws or ordinances of this jurisdiction or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent or to the person doing the work and shall state the conditions under which work will be permitted to resume.

SECTION IB-19. Chapter 1 Division II Section R114.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R114.2 Unlawful continuance. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of a misdemeanor. Such work shall constitute a continuing violation of this Code.

SECTION IB-20. Chapter 1 Division II Section R115 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION R115
UNSAFE STRUCTURES AND EQUIPMENT

R115.1 Conditions. Structures or existing equipment that are or hereafter become unsafe, insanitary *or* deficient because of inadequate *means of egress* facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the *building official* deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe.

R115.2 Record. The *building official* shall cause a report to be filed on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.

R115.3 Notice. If an unsafe condition is found, the *building official* shall serve on the owner, agent or person in control of the structure, a written notice that describes the condition deemed unsafe and specifies the required repairs or improvements to be made to abate the unsafe condition, or that requires the unsafe structure to be demolished within a stipulated time. Such notice shall require the person thus notified to declare immediately to the *building official* acceptance or rejection of the terms of the order.

R115.4 Method of service. Such notice shall be deemed properly served if a copy thereof is (a) delivered to the owner personally; (b) sent by certified or registered mail addressed to

the owner at the last known address with the return receipt requested; or (c) delivered in any other manner as prescribed by local law. If the certified or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner upon the owner's agent or upon the person responsible for the structure shall constitute service of notice upon the owner.

R115.5 Restoration. The structure or equipment determined to be unsafe by the *building official* is permitted to be restored to a safe condition. To the extent that repairs, *alterations* or *additions* are made or a change of occupancy occurs during the restoration of the structure, such repairs, *alterations*, *additions* or change of occupancy shall comply with the requirements of Section 105.2.2 and Chapter 34 of Volume IA of this Code.

R115.6 Non-Compliance. Upon failure to comply with the order within the time specified herein, and if no appeal has been properly and timely filed, the building official shall file in the office of the County Recorder a certificate describing the property and certifying (i) that the building is an unsafe building and (ii) that the owner has been notified. Whenever the corrections ordered shall thereafter have been completed or the building demolished so that it no longer exists as an unsafe building on the property described in the certificate, the building official shall file a new certificate with the County Recorder certifying that the building has been demolished or all required corrections have been made so that the building is no longer unsafe, whichever is appropriate.

R115.7 Vacated Buildings. Any unsafe building ordered vacated in accordance with this section shall not be reoccupied until the unsafe conditions have been eliminated.

Each such vacated building shall be locked and otherwise secured against entry and the building official shall post thereon a placard stating: "DO NOT ENTER, UNSAFE TO OCCUPY, CITY OF GLENDALE." Such notice shall remain posted until the required repairs, demolition or removal are completed. Such notice shall not be removed without written permission of the building official and no person shall enter the building except for the purpose of making the required repairs or of demolishing the building.

SECTION IB-21. Chapter 1 Division II Section R116 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION R116

CONSTRUCTION TOILET FACILITIES

R116 Temporary Construction Toilets. Toilet Facilities Required. No person shall commence or proceed with the erection, construction, alteration, repair, raising, adding to, removal, or demolition of any building or structure unless adequate, suitable, sanitary toilet facilities under the control of such person are provided for the use of any person employed or working upon such building or structure. Such toilet facilities shall be located upon or within a reasonable distance of the lot, premises, or site upon which such work is being done. In no case shall the line of travel to any facility exceed 500 feet (153 M). Toilets may not be placed on the public way.

R116.1 Toilet Standards. Every toilet shall be of water flush type and shall be connected to a public sewer or private sewage disposal system built in accordance with the provisions of the Plumbing Code. All toilet structures shall be self-closing; the toilet floor shall be smooth, and screened ventilation shall be provided for the toilet compartment. Where workmen are employed during night hours, the toilet building shall

be provided with artificial light. In lieu of flush water closets approved chemical toilets may be provided. Toilets may not be located within 10' (3054 mm) of a property line.

SECTION IB-22. Chapter 1 Division II Section R117 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION R117

ON SITE CONSTRUCTION TRASH AND DEBRIS CONTROL

R117 On Site Construction Trash and Debris Control Facilities Required.

No person shall commence or proceed with erection, construction, alteration, repair, raising, adding to, removal, or demolition of any building or structure unless adequate, suitable on site trash and debris control facilities under the control of such person are provided for the use of any person employed or working upon such building or structure. On site trash and debris control shall consist of at least a roll off 523 ft³ (15m³) bin. The container shall be emptied often enough so that no storage of trash is outside the bin. The bin shall be removed from the site after the building has passed final inspection or within thirty (30) days of the expiration of the building permit.

Exception: Additions, less than 900 ft² (84m²), and alterations to Group R, Division 3 occupancies and Group U occupancies need not provide a roll off bin but must store trash and debris in the rear yard in quantities less than 10 ft (3m) wide by 10 ft (3m) long by 4 ft (1.2m) high. All trash and debris whether or not in containers shall be kept 3 ft (912mm) from adjacent property lines.

SECTION IB-23. Chapter 1 Division II Section R118 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION R118

DISASTER REPAIR AND RECONSTRUCTION

R118.1 Intent. This section establishes standards and regulations for the expeditious repair and reconstruction of structures damaged as a result of a disaster for which a local emergency has been declared by the City Council. This section does not allow exemptions from the Building, Fire, Electrical, Mechanical, Plumbing, other Codes, or standards.

R118.2 Applications of Provisions.

R118.2.1 The provisions of this section are applicable following each disaster when a local emergency has been declared by the City Council to all buildings and structures of all occupancies regulated by the City of Glendale. The Council may extend the provisions as necessary.

R118.2.2 When approved by the building official, the requirements of this section may be waived in favor of repair recommendations included in an engineering evaluation as defined in Section R118.3.

R118.3 DEFINITIONS. For the purpose of this section R118, the following definitions apply:

R118.3.1 “ARCHITECT” means an individual licensed by the State of California to practice architecture as defined in the State of California Business and Professions Code.

R118.3.2 “CIVIL ENGINEER” means an individual registered by the State of

California to practice architecture as defined in the State of California Business and Professions Code.

R118.3.3 “CURRENT CODE” means the edition of the California Building Code, published by the International Conference of Building Officials, as adopted by the City of Glendale as the Glendale Building and Safety Code, as amended. The edition of said Glendale Building and Safety Code to be applied shall be that edition in effect at the time of the declaration of a local emergency by the City Council.

R118.3.4 “ENGINEERING EVALUATION” means an evaluation of a damaged building or structure, or suspected damaged building or structure, performed under the direction of a structural engineer, civil engineer, or architect retained by the owner of the building or structure. Engineering evaluations shall, at a minimum, contain recommendations for repair with appropriate opinion of construction cost for those repairs.

R118.3.5 “REPLACEMENT VALUE” means the dollar value, as determined by the new building official, of replacing the damaged structure with a new structure of the same size, construction material and occupancy on the same site.

R118.3.6 “STRUCTURAL ENGINEER” means an individual registered by the State of California to practice civil engineering and to use the title structural engineer as defined in the State of California Business and Professions Code.

R118.3.7 “VALUE OF REPAIR” means the dollar value, as determined by the building official, of making the necessary repairs to the damaged building.

R118.4 Repair Criteria.

R118.4.1 Abatement of Dangerous Buildings shall be in accordance with the provisions of Chapter 1 Division II, Section R115.

R118.4.2 Building and structures of all occupancies which have been damaged as a result of a disaster, except as otherwise noted, shall be repaired in accordance with the following criteria:

1. When the estimated value of repair does not exceed ten percent (10%) of the replacement value of the structure, the damaged portion(s) may be restored to their pre-disaster condition.

Exception: When the damaged elements include suspended ceiling systems, the ceiling system shall be repaired and all bracing required by current code shall be installed.

2. When the estimated value of repair is greater than ten percent (10%) but less than fifty percent (50%) of the replacement value of the structure, the damaged elements, as well as all critical ties, supported elements and supporting elements associated with the damaged elements, shall be repaired and/or brought into conformance with the structural requirements of the current Code.
3. When the estimated value of repair is fifty percent (50%) or more of the replacement value of the structure, the entire structure shall be brought into conformance with the structural requirements of the current Code.
4. In Group R, Division 3 occupancies, the repair value of damaged

chimneys shall be excluded from the computation of percentage of replacement value. Damaged chimneys shall be repaired in accordance with *Chapter 1 Division II, Section 118.5.*

R118.5 Repair Criteria for Chimneys.

R118.5.1 All damaged chimneys must be repaired or reconstructed to comply with the requirements of Section 2113 of the Glendale Building and Safety Code, 2011. Damaged portions of chimneys shall be removed in accordance with the following criteria:

1. When the damaged portion of the chimney is located between the roof line and the top of the chimney, the damaged portion shall be removed to the roof line provided the roof and ceiling anchorage are in sound condition.
2. For a single-story structure in which the damaged portion of the chimney is below the roof line or the damaged portion extends from above the roof line to below the roof line, the chimney shall be removed to the top of the fire box.
3. For a multi-story structure, the damaged portion of the chimney shall be removed from the top to a floor line where sound anchorage is found.
4. In any structure where the firebox has been damaged, the entire chimney and firebox shall be removed to the foundation. If this foundation is in sound condition, the firebox and chimney may be reconstructed using the existing foundation. If the foundation has been damaged, the foundation shall be removed and replaced.

R118.5.2 Where existing conditions preclude the installation of all anchorage required by Section 2113 of Volume IA of this Code, alternate systems may be

used in accordance with the alternate methods and materials provisions of said Code when approved by the building official. Such alternate systems shall be designed and detailed by a structural engineer, civil engineer, or architect.

R118.6 Repair Criteria for Unreinforced Masonry Buildings and Structures.

R118.6.1 All damaged buildings as defined in Section 5803 of Volume IA of this Code shall be repaired and strengthened in accordance with provisions of *Chapter I Division II*, Section R118.4.

118.6.2 Unreinforced masonry buildings damaged less than 50% shall be repaired in accordance with Chapter 58 of Volume IA of this Code.

SECTION IB-24. Chapter 1 Division II Section R119 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION R119

SANDBLASTING

R119.1. Sandblasting: Definition. As used in this article, unless the context expressly indicates otherwise, "sandblasting" shall mean the use of air, steam or water containing sand to clean, grind, or cut hard surfaces.

R119.2. Dry Sandblasting. Dry sandblasting is prohibited unless authorized by special permission from the building official endorsed upon a permit. Permission for dry sandblasting may be granted only when it is not possible to employ wet sandblasting. When dry sandblasting is permitted, the building official may impose such reasonable and related conditions as he or she may deem necessary for the protection of the public and the adjacent property.

R119.3. Use of Canvas. Sandblasting operations shall, at all times, be separated from all adjacent property by canvas or other suitable barrier to prevent the splashing or blowing of water and/or sand thereupon.

R119.4. Stoppage of Work. The building official may order the immediate stoppage of sandblasting for failure to comply with any provision of this chapter. Failure of any person to comply immediately with such order shall constitute a misdemeanor.

SECTION IB-25. Chapter 1 Division II Section R120 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

SECTION R120

PROTECTION OF PEDESTRIANS

R120.1 Protections required. Pedestrians shall be protected during construction, remodeling and demolition activities as required by this section. Signs shall be provided to direct pedestrian traffic.

R120.2 Walkways. A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 5 feet (1524 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be *accessible* in accordance with the California Building Code Chapter *11A or 11B as applicable*, and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m²).

SECTION IB-26 Section R301.1.3.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R301.1.3.2 Woodframe structures ~~greater than two stories~~. *The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than two stories and basement in height. Notwithstanding other sections of law, the law establishing these provisions is found in Business and Professions Code Sections 5537 and 6737.1.*

The building official shall require construction documents which demonstrate compliance with the seismic provisions of the California Building Code to be approved and stamped by a California licensed architect or engineer for all dwellings of wood frame construction more than one story in height located in Seismic Design Category D₀, D₁, D₂ or E.

SECTION IB-27. Section R301.1.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R301.1.4 Seismic design provisions for buildings constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope).

The design and construction of new buildings and additions to existing buildings when constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope) shall comply with Section 1613.15 of Volume IA of this Code.

SECTION IB-28. Section R301.2.2.2.5 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R301.2.2.2.5 Irregular buildings. Prescriptive construction as regulated by this code shall not be used for irregular structures located in Seismic Design Categories C, D₀, D₁ and D₂. Irregular portions of structures shall be designed in accordance with accepted engineering practice to the extent the irregular features affect the performance of the remaining structural system. When the forces associated with the irregularity are resisted by a

structural system designed in accordance with accepted engineering practice, design of the remainder of the building shall be permitted using the provisions of this code. A building or portion of a building shall be considered to be irregular when one or more of the following conditions occur:

1. When exterior shear wall lines or *braced wall panels* are not in one plane vertically from the foundation to the uppermost *story* in which they are required.
2. When a section of floor or roof is not laterally supported by shear walls or *braced wall lines* on all edges.
3. When the end of a *braced wall panel* occurs over an opening in the wall below.
4. When an opening in a floor or roof exceeds the lesser of 12 feet (3658 mm) or 50 percent of the least floor or roof dimension.
5. When portions of a floor level are vertically offset.
6. When shear walls and *braced wall lines* do not occur in two perpendicular directions.
7. When stories above-grade partially or completely braced by wood wall framing in accordance with Section R602 or steel wall framing in accordance with Section R603 include masonry or concrete construction.

Exception: Fireplaces, chimneys and masonry veneer as permitted by this code. When this irregularity applies, the entire *story* shall be designed in accordance with accepted engineering practice.

SECTION IB-29. Section R302.1.1 of Volume 1B of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R302.1.1 Construction on contiguous lots under same ownership or occupancy. In those cases where lots, or portions of lots, contiguous to one another are owned or occupied by the same person, such lots, or portions of lots, may be considered one lot for the purpose of enforcing Section R302.1, Table R302.1(1), R302.1(2) and Table R302.6 of this Code, In such event, the owner of said lots shall be required to execute and record a covenant and agreement with the City to the satisfaction of the building official on a form approved by the City Attorney. Said covenant and agreement shall, among other things, provide that said lots or portions of lots shall remain as one parcel and the owner thereof shall not sell, transfer or in any way sever any portion of said lots or portions of lots independently from the remaining lots or portions of lots until or unless released from the covenant and agreement by the city. Said covenant and agreement shall be recorded by the Los Angeles County Recorder, shall run with the lot or portions of lots, and shall be binding upon the owner, future owners, encumbrancers, successors, heirs, and assigns. An easement for right of way purposes shall not constitute ownership or occupancy under this Section R302.1.1. The building official is hereby authorized to execute such agreements on behalf of the City.

SECTION IB-30. Section R313 of Volume IB of the Glendale Building and Safety Code, 2011, regarding automatic sprinkler systems is hereby repealed in its entirety and is hereby replaced with the following:

SECTION R313

AUTOMATIC FIRE SPRINKLER SYSTEMS

R313.1 Where required. Approved automatic sprinkler systems in new and existing buildings and structures shall be provided in accordance with this section.

R313.2 New occupancies. An automatic sprinkler system shall be installed in all new occupancies.

R313.3 Existing occupancies. An automatic sprinkler system shall be installed and maintained in all existing occupancies and new sections of any existing building whenever alterations exceed fifty percent (50%) of the replacement value, as determined by the building official. Alteration values shall be cumulative with each application for a building permit within the previous five years.

SECTION IB-31. Section R314.4 of Volume IB of the Glendale Building and Safety Code, 2011, regarding smoke alarm power source is hereby amended to read as follows.

R314.4. Power source. *Smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.*

Exceptions:

1. In buildings constructed under editions of the Glendale Building and Safety Code prior to the 1992 edition, smoke alarms other than those located in the corridor or area giving access to each sleeping area are permitted to be solely battery operated provided no construction or construction requiring a permit not exceeding \$1000 has taken place,

and alterations or repairs do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.

2. Group R Division 3 occupancies in existence prior to 1973 may utilize smoke alarms that are solely battery powered provided no construction or construction requiring a permit, not exceeding \$1000 has taken place, and alterations or repairs do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.
3. Smoke alarms that receive their primary power from the building's existing wiring from a commercial source may remain in service without being provided with battery backup. Any smoke alarm that is replaced for any reason shall be provided with battery backup.

SECTION IB-32. Section R319.1 of Volume IB of the Glendale Building and Safety Code, 2011, regarding address numbers is hereby amended to read as follows.

R319.1 Address numbers. Buildings shall have *approved* address numbers, building numbers or *approved* building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of ½ inches (12.7 mm). Where access is by means of a private road and the building address

cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be illuminated in an approved manner.

SECTION IB-33. Section R401.1 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R 401.1 Application. The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings. In addition to the provisions of this chapter, the design and construction of foundations in areas prone to flooding as established by Table R301.2(1) shall meet the provisions of Section R322. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

Exception: The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. When interior *basement* and foundation walls are constructed at intervals not exceeding 50 feet (15 240 mm).

Wood foundations in Seismic Design Category D₀, D₁ and D₂ shall not be permitted.

SECTION IB-34. Section R401.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R401.4 Soil tests. Where required by the building official, a geotechnical report shall be required for all new construction.

Exceptions:

1. Buildings and structures not located in the Wildland Urban Interface (WUI) areas, seismic hazard zone, Alquist-Priolo zone or adjacent to slopes greater than 3 units horizontal to 1 unit vertical.
2. Additions less than 500 square feet where the foundation design and footings comply with the following:
 - a. Soils bearing value shall be a maximum of 1500 pounds per square foot.
 - b. The footing shall comply with Table R403.1 for a 3-story structure.
3. Ancillary structures less than 500 square feet where foundation design and footings comply with the following:
 - a. Soils bearing value shall be a maximum of 1500 pounds per square foot.
 - b. The footing shall comply with Table R403.1 for a 3-story structure.

SECTION IB-35. Section R401.5 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R401.5 Grading. Grading requirements shall be in compliance with Appendix J, GRADING, of Volume IA of this Code.

SECTION IB-36. Section R402.1 of Volume IB of the Glendale Building and Safety Code, 2011, wood foundation systems, is hereby repealed.

SECTION IB-37. Section R403.1.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R403.1.2 Continuous footing in Seismic Design Categories D₀, D₁ and D₂. *The, braced wall panels* at exterior walls of buildings located in Seismic Design Categories D₀, D₁ and D₂ shall be supported by continuous footings. All required interior *braced wall panels* in buildings shall be supported by continuous footings.

SECTION IB-38. Figure R403.1(2) of Volume IB of the Glendale Building and Safety Code, 2011, regarding permanent wood foundation basement wall section, is hereby repealed.

SECTION IB-39. Figure R403.1(3) of Volume IB of the Glendale Building and Safety Code, 2011, regarding permanent wood foundation crawl space section, is hereby repealed.

SECTION IB-40. Section R403.1.3 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R403.1.3 Seismic reinforcing. Concrete footings located in Seismic Design Categories D₀, D₁ and D₂, as established in Table R301.2(1), shall have minimum reinforcement. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D₀, D₁ and D₂ where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of

the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

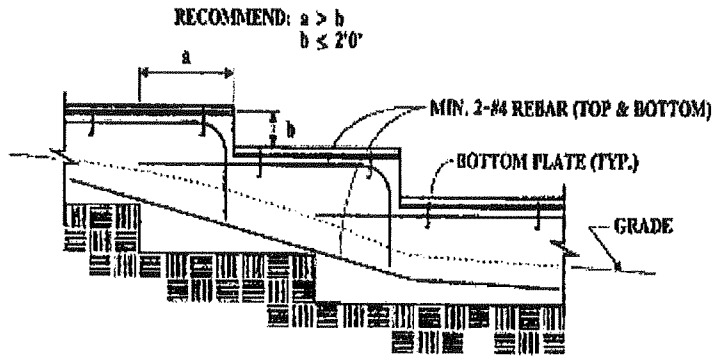
In Seismic Design Categories D₀, D₁ and D₂ where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D₀, D₁ and D₂ masonry stem walls without solid grout and vertical reinforcing are not permitted.

SECTION IB-41. Section R403.1.5 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R403.1.5 Slope. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures assigned to Seismic Design Category D₀, D₁ or D₂, stepped footings shall be reinforced with four 1/2 inch diameter (12.7mm) deformed reinforcing bars. Two bars shall be placed at the top and bottom of the footings as shown in Figure R403.1.5.



STEPPED FOUNDATIONS

**FIGURE R403.1.5
STEPPED FOOTING**

SECTION IB-42. Section R404.2. of Volume IB of the Glendale Building and Safety Code, 2011, regarding wood foundation walls, is hereby repealed.

SECTION IB-43. Table R404.2.3 of Volume IB of the Glendale Building and Safety Code, 2011, regarding plywood grade and thickness of wood foundation construction, is hereby repealed.

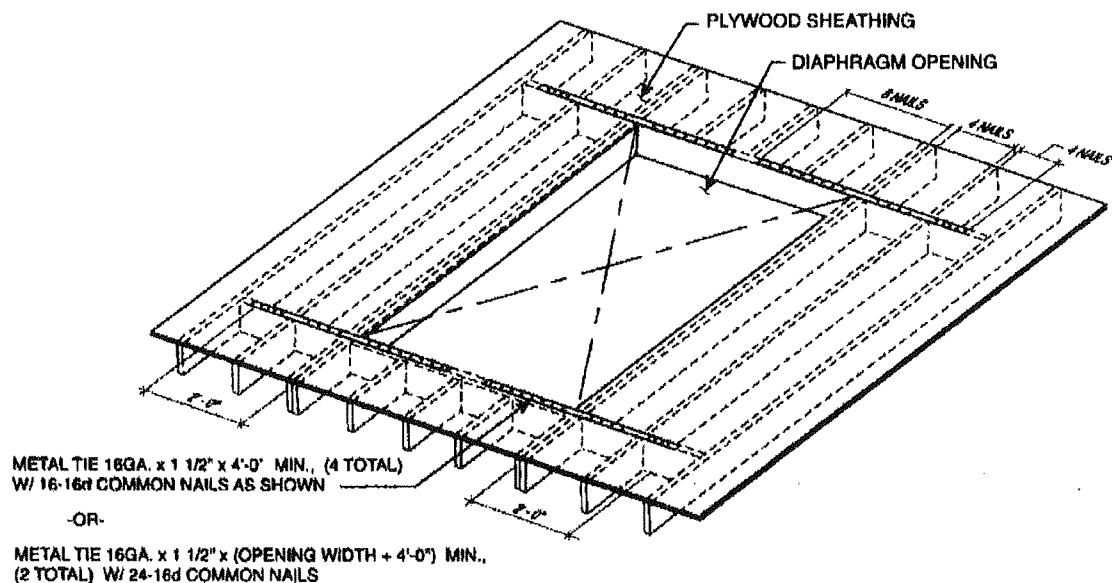
SECTION IB-44. Section R501.1 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R501.1 Application. The provisions of this chapter shall control the design and construction of the floors for all buildings including the floors of *attic* spaces used to house mechanical or plumbing fixtures and *equipment* weighing less than 400 pounds (82 kilograms) and maximum height of 4 feet (1219 mm) above the floor or attic level.

SECTION IB-45. Section R503.2.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R503.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms with a dimension perpendicular to the joist that is greater than 4 feet (1.2m) shall be constructed in accordance with Figure R503.2.4.

SECTION IB-46. Figure R503.2.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE R503.2.4
OPENINGS IN HORIZONTAL DIAPHRAGMS

- a. Blockings shall be provided beyond headers.
- b. Metal ties not less than 0.058 inch [1.47 mm (16 galvanized gage)] by 1.5 inches (38 mm) wide with eight 16d common nails on each side of the header-joist intersection. The metal ties shall have a minimum yield of 33,000 psi (227 MPa).

- c. Openings in diaphragm shall be further limited in accordance with Section R301.2.2.2.5

SECTION IB-47. Section R503.3 of Volume IB of the Glendale Building and Safety Code, 2011, regarding particleboard, is hereby repealed.

SECTION IB-48. Section R602.3.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R602.3.2 Top plate. Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and intersections with bearing partitions. End joints in top plates shall be offset at least 24 inches (610 mm). Joints in plates need not occur over studs. Plates shall be not less than 2-inches (51 mm) nominal thickness and have a width at least equal to the width of the studs.

Exception: In other than Seismic Design Category D₀, D₁ or D₂, a single top plate may be installed in stud walls, provided the plate is adequately tied at joints, corners and intersecting walls by a minimum 3-inch-by-6-inch by a 0.036-inch-thick (76 mm by 152 mm by 0.914 mm) galvanized steel plate that is nailed to each wall or segment of wall by six 8d nails on each side, provided the rafters or joists are centered over the studs with a tolerance of no more than 1 inch (25 mm). The top plate may be omitted over lintels that are adequately tied to adjacent wall sections with steel plates or equivalent as previously described.

SECTION IB-49. Table R602.3(1) of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

TABLE R602.3 (1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER OF TYPE OF FASTENERS ^{a, b, c}	SPACING OF FASTENERS
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2 1/2" x 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d (2 1/2" x 0.113")	—
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	—
4	Collar tie rafter, face nail or 1 1/4" x 20 gage ridge strap	3-10d (3"x 0.128")	—
5	Rafter to plate, toe nail	2-16d (3 1/2" x 0.135")	—
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3 1/2" x 0.135") 3-16d (3 1/2" x 0.135")	— —
Wall			
7	Built-up corner studs	10d (3" x 0.128")	24" o.c.
8	Built-up header, two pieces with 1/2" spacer	16d (3 1/2" x 0.135")	16" o.c. along each ridge
9	Continued header, two pieces	16d (3 1/2" x 0.135")	16" o.c. along each ridge
10	Continuous header to stud, toe nail	4-8d (2 1/2" x 0.113")	—
11	Double studs, face nail	10d (3"x 0.128")	24" o.c.
12	Double top plates, face nail	10d(3"x 0.128")	24" o.c.
13	Double top plates, minimum 48-inch offset of end joints, face nail in lapped area	8-16d (3 1/2" x 0.135")	—
14	Sole plate to joist or blocking, face nail	16d (3 1/2" x 0.135")	16" o.c.
15	Sole plate to joist or blocking at braced wall panels	3-16d (3 1/2" x 0.135")	16" o.c.

S:\2011 GBSC-2010 CBC\GBSC_2011_Clean Version\GBSC_2011_Volume IB_110910.doc

TABLE R602.3 (1)-continued
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER OF TYPE OF FASTENERS ^{a, b, c}	SPACING OF FASTENERS
16	Stud to sole plate, toe nail	3-8d (2 1/2" x 0.113") or 2-16d (3 1/2" x 0.135")	—
17	Top or sole plate to stud, end nail	2-16d (3 1/2" x 0.135")	—
18	Top plates, laps at corners and intersections, face nail	2-10d (3" x 0.128")	—
19	1" brace to each stud and plate, face nail	2-8d (2 1/2" x 0.113") 2 staples 1 3/4"	—
20	1"x6" sheathing to each bearing, face nail	2-8d (2 1/2" x 0.113") 2 staples 1 3/4"	—
21	1"x8" sheathing to each bearing, face nail	2-8d (2 1/2" x 0.113") 3 staples 1 3/4"	—
22	Wider than 1"x 8" sheathing to each bearing, face nail	2-8d (2 1/2" x 0.113") 4 staples 1 3/4"	—
Floor			
23	Joist to sill or girder, toe nail	3-8d (2 1/2" x 0.113")	—
24	1"x6" subfloor or less to each joist, face nail	2-8d (2 1/2" x 0.113") 2 staples 1 3/4"	—
25	2" subfloor to joist or girder, blind and face nail	2-16d (3 1/2" x 0.135")	—
26	Rim joist to top plate, toe nail (roof applications also)	8d (2 1/2" x 0.113")	6" o.c.
27	2" planks (plank & beam-floor & roof)	2-16d (3 1/2" x 0.135")	at each bearing
28	Built-up girders and beams, 2-inch lumber layers	10d(3"x 0.128")	Nail each layer as follows: 32" o.c. at top and bottom and staggered. Two nails at ends and at each splice.
29	Ledger strip supporting joists or rafters	3-16d (3 1/2" x 0.135")	At each joist or rafter

**TABLE R602.3(1)-continued
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS**

ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENERS ^{b,c,e}	Spacing of Fasteners	
			Edges (Inches) ⁱ	Intermediate supports ^{c,g} (inches)
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing				
30	3/8"-1/2"	6d common (2"x 0.113") nail (subfloor wall) ^j 8d common 2 1/2" x 0.131") nail (roof)	6	12 ^g
31	5/16"-1/2"	6d common (2"x 0.113") nail (subfloor wall) 8d common 2 1/2" x 0.131") nail (roof) ^f	6	12 ^g
32	19/32"-1"	8d common (2 1/2" x 0.131")	6	12 ^g
33	1 1/8"=1 1/4"	10d common (3" x 0.148") nail or 8d (2 1/2"x 0.131") deformed nail	6	12
Other wall sheathing ^h				
34	1/2" gypsum sheathing ^d	1 1/2" galvanized roofing nail; 1/14 screws, Type W or S	7	7
35	5/8" gypsum sheathing ^d	1 3/4" galvanized roofing nail; 1 5/8" screws, Type W or S	7	7
Wood structural panels, combination subfloor underlayment to framing				
36	3/4" and less	6d deformed (2" x 0.120") nail or 8d common (2 1/2"x 0.131") nail	6	12
37	7/8"-1"	8d common (2 1/2" x 0.131") nail or 8d deformed (2 1/2"x 0.120") nail	6	12
38	1 1/8"- 1 1/4"	10d common (3" x 0.148") nail or 8d deformed (2 1/2"x 0.120") nail	6	12

Notes to Table R602.3(1):

For SI: 1 inch = 25.4 mm, 1 foot =304.8 mm, 1 mile per hour = 0.447 m/s; 1ksi=6.895

MPa.

- a. All nails are smooth-common, box or deformed shanks except where otherwise stated.

Nails used for framing and sheathing connections shall have mini average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch bi larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.

- b. [Not adopted]
- c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
- d. Four-foot-by-8-foot or 4-foot-by-9-foot panels shall be applied vertically.
- e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).
- f. For regions having basic wind speed of 110 mph or greater, 8d deformed (2 V₂" x 0.120) nails shall be used for attaching plywood and wood structural panel sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet, up to 35 feet maximum.
- g. For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 in on center. When basic wind speed is greater than 100 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing.
- h. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 253.
- i. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters (Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.

SECTION IB-50. Table R602.3(2) of Volume IA of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

(TABLE ON FOLLOWING PAGE)

TABLE R602.3(2)
ALTERNATE ATTACHMENTS

NOMINAL MATERIAL THICKNESS	DESCRIPTION ^{a, b} OF FASTENER AND LENGTH (inches)	SPACING ^c OF FASTENERS	
		EDGES (inches)	INTERMEDIATE SUPPORTS (inches)
Wood structural panels subfloor roof and wall sheathing to framing and particleboard wall sheathing to framing ^f			
up to 1/2	0.097-0.099 Nail 2 1/4	3	6
19/32 and 5/8	0.113 Nail 2	3	6
	0.097- 0.099 Nail 2 1/4	4	8
23/32 and 3/4	0.097-0.099 Nail 2 1/4	4	8
1	0.113 Nail 2 1/4	3	6
	0.097-0.099 Nail 2 1/2	4	8
NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION ^{a, b} OF FASTENER AND LENGTH (inches)	SPACING ^o OF FASTENERS	
		Edges (inches)	Body of panel ^d (inches)
Floor underlayment; plywood-hardboard-particleboard ^f			
Plywood			
1/4 and 5/16	1 1/4 ring or screw shank nail -minimum 12 1/2 ga. (0.99") shank diameter	3	6
	Staple 18 ga., 7/8, 3/16 crown width	2	5
11/32, 3/8, 15/32, and 1/2	1 1/4 ring or screw shank nail -minimum 12 1/2 ga. (0.99") shank diameter	6	8 ^e
19/32, 5/8, 23/32 and 3/4	1 1/2 ring or screw shank nail-minimum 12 1/2 ga (0.099") shank diameter	6	8
	Staple 16 ga. 1 1/2	6	8
Hardboard ^f			
0.200	1 1/2 long ring-grooved underlayment nail	6	6
	4d cement-coated sinker nail	6	6
	Staple 18 ga., 7/8 long (plastic coated)	3	6

Notes to Table R602.3(2):







For SI: 1 inch =25.4 mm

- a. Nail is a general description and may be T-head, modified round head or round head.
b. [Not adopted]

- c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. Nails shall be spaced at not more than 12 inches on center at intermediate supports for floors.
- d. Fasteners shall be placed in a grid pattern throughout the body of the panel.
- e. For 5-ply panels, intermediate nails shall be spaced not more than 2 inches on center each way.
- f. Hardboard underlayment shall conform to ANSI/AHA A135.4.

SECTION IB-51. Table 602.10.1.2(2) of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:


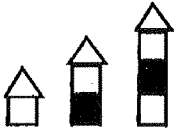

TABLE R602.10.1.2(2) ^{a, b, c}
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY
(AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS Da WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING < 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	Methods GB, PCP	Method WSP	Continuous Sheathing
SDC A and B and Detached Dwellings in C		Exempt from Seismic Requirements Use Table R602.10.1.2(1) for Bracing Requirements				
SDC C		10	2.5	2.5	1.6	1.4
		20	5.0	5.0	3.2	2.7
		30	7.5	7.5	4.8	4.1
		40	10.0	10.0	6.4	5.4
		50	12.5	12.5	8.0	6.8
		10	NP	4.5	3.0	2.6
		20	NP	9.0	6.0	5.1
		30	NP	13.5	9.0	7.7
		40	NP	18.0	12.0	10.2
		50	NP	22.5	15.0	12.8
		10	NP	6.0	4.5	3.8
		20	NP	12.0	9.0	7.7
		30	NP	18.0	13.5	11.5
		40	NP	24.0	18.0	15.3
		50	NP	30.0	22.5	19.1
SDC D ₀ or D ₁		10	NP	6.0	2.0	1.7
		20	NP	12.0	4.0	3.4
		30	NP	18.0	6.0	5.1
		40	NP	24.0	8.0	6.8
		50	NP	30.0	10	8.5
		10	NP	NP	4.5	3.8
		20	NP	NP	9.0	7.7
		30	NP	NP	13.5	11.5
		40	NP	NP	18.0	15.3
		50	NP	NP	22.5	19.1
		10	NP	NP	6.0	5.1
		20	NP	NP	12.0	10.2
		30	NP	NP	18.0	15.3
		40	NP	NP	24.0	20.4
		50	NP	NP	30.0	25.5

(continued)

S:\2011 GBSC-2010 CBC\GBSC_2011_Clean Version\GBSC_2011_Volume IB_110910.doc

TABLE R602.10.1.2(2) a, b, c, d - continued
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY
(AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS Da WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING < 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	Methods GB, PCP	Method WSP	Continuous Sheathing
SDC D ₂		10	NP	8.0	2.5	2.1
		20	NP	16.0	5.0	4.3
		30	NP	24.0	7.5	6.4
		40	NP	32.0	10.0	8.5
		50	NP	40.0	12.5	10.6
		10	NP	NP	5.5	4.7
		20	NP	NP	11.0	9.4
		30	NP	NP	16.5	14.0
		40	NP	NP	22.0	18.7
		50	NP	NP	27.5	23.4
		10	NP	NP	NP	NP
		20	NP	NP	NP	NP
		30	NP	NP	NP	NP
		40	NP	NP	NP	NP
		50	NP	NP	NP	NP

Notes to Table 602.10.1.2(2):

For SI: 1 foot = 304.8 mm, 1 pound per square foot = 47.89 Pa.

- a. Wall bracing lengths are based on a soil site class "D." Interpolation of bracing length between S_{ds} value is determined in accordance with Section 1613.5 of the California Building Code.
- b. Foundation cripple wall panels shall be braced in accordance with Section R602.10.9.
- c. Methods of bracing shall be as described in Section R602.10.2, R602.10.4 and R602.10.5
- d. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D₀, D₁ and D₂.

SECTION IB-52. Table R602.10.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

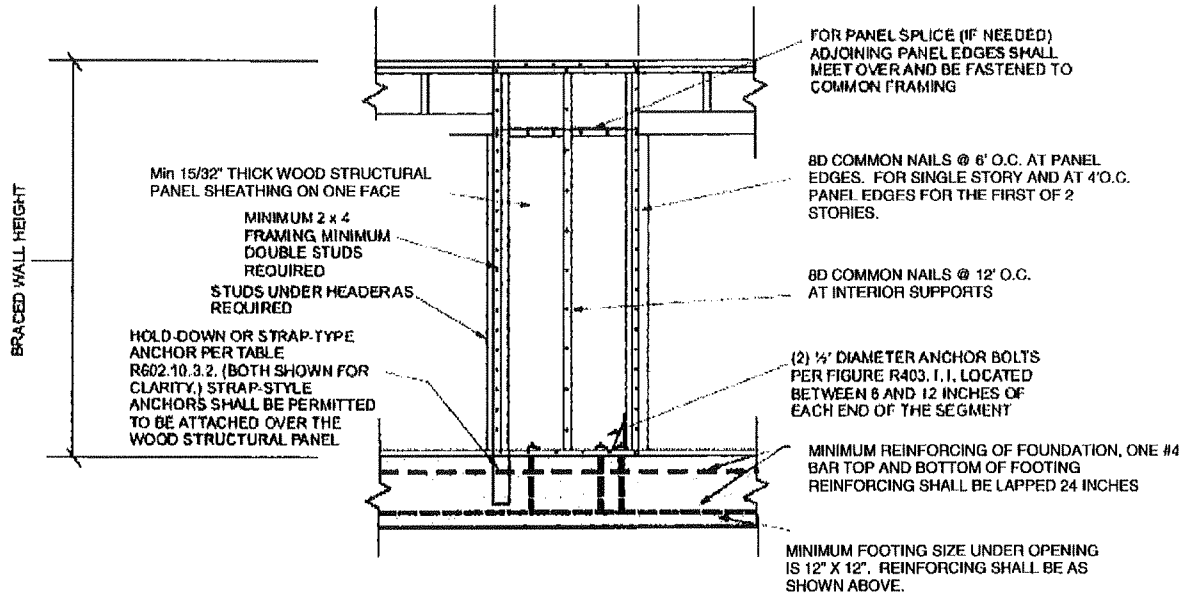
TABLE R802.10.2
INTERMITTENT BRACING METHODS

INTERMITTENT BRACING METHODS				
METHOD	MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA
LIB	Let-in-bracing	1 x 4 wood or approved metal straps at 45° to 60° angles for maximum 16" stud spacing		Wood: 2-8d nails per stud including top and bottom plate metal: per manufacturer
(THIS ROW IS INTENTIONALLY LEFT BLANK)				
WSP	Wood structural panel (see Section R604)	3/8"		8d common (2 1/2" x 0.131) nails at 6" spacing (panel edge) at 12" spacing (intermediate support), 3/8" edge distance to panel edge
(THIS ROW IS INTENTIONALLY LEFT BLANK)				
GB	Gypsum board	1/2"		Nails or screws at 7" spacing at panel edges including top and bottom plates; for all braced wall panel locations for exterior sheathing nail or screw size, see Table R602.3(1); for interior gypsum board nail or screw size see Table R702.3.5
(THIS ROW IS INTENTIONALLY LEFT BLANK)				
PCP	Portland cement plaster	See Section R703.6 For maximum 16" stud spacing		1 1/2", 11 gage, 7/16" head nails at 6" spacing
HPS	Hardboard panel siding	7/16" For maximum 16" stud spacing		0.092" dia., 0.225" head nails with length to accommodate 1 1/2" penetration into studs at 4" spacing (panel edges), at 8" spacing (intermediate supports)
ABW	Alternate braced wall	See Section R602.10.3.2		See Section R602.10.3.2
PFH	Intermittent portal frame	See Section R602.10.3.3		See Section R602.10.3.3
PPG	Intermittent portal frame at garage	See Section R602.10.3.4		See Section R602.10.3.4

Notes to Table R602.10.2:

- a. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D₀, D₁ and D₂. Methods LIB, HPS, and PFG are not permitted in SDC D₀, D₁ and D₂

SECTION IB-53. Figure R602.10.3.2 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:



**FIGURE R602.10.3.2
ALTERNATE BRACED WALL PANEL**

SECTION IB-54. Section R602.10.3.3 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R602.10.3.3 Method PFH: Portal frame with hold-downs. Method PFH *braced wall panels* constructed in accordance with one of the following provisions are also permitted to replace each 4 feet (1219 mm) of *braced wall panel* as required by Section R602.10.3 for use adjacent to a window or door opening with a full-length header:

1. Each panel shall be fabricated in accordance with Figure R602.10.3.3. The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure R602.10.3.3. A

spacer, if used with a built-up header, shall be placed on the side of the built-up beam opposite the wood structural panel sheathing. The header shall extend between the inside faces of the first full-length outer studs of each panel. One anchor bolt not less than $\frac{5}{8}$ -inch-diameter (16 mm) and installed in accordance with Section R403.1.6 shall be provided in the center of each sill plate. The hold-down devices shall be an embedded-strap type, installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation which is continuous across the entire length of the braced wall line. The foundation shall be reinforced as shown on Figure R602.10.3.2. This reinforcement shall be lapped not less than 24 inches (381 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

2. In the first *story* of two-story buildings, each wall panel shall be braced in accordance with item 1 above, except that each panel shall have a length of not less than 24 inches (610 mm).

SECTION IB-55. Figure R602.10.3.3 of Volume IB of the Glendale Building

and Safety Code, 2011, is hereby amended to read as follows:

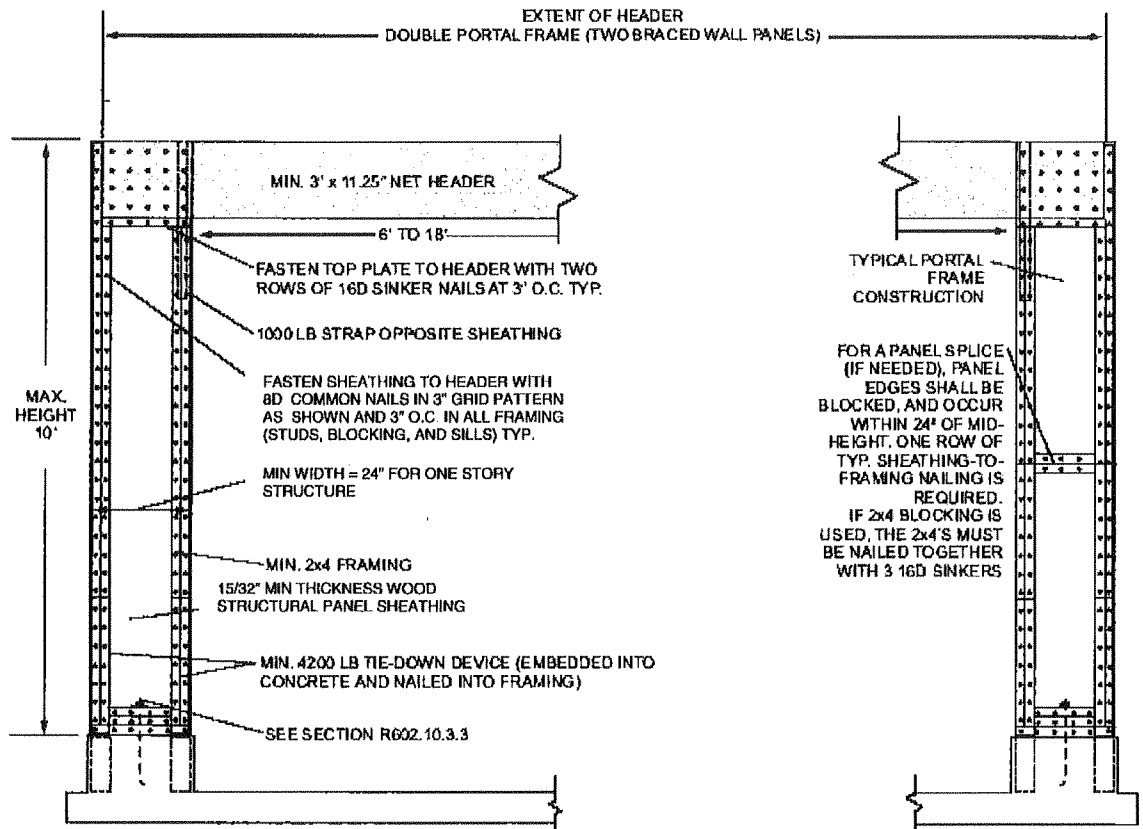
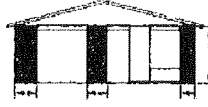




FIGURE R602.10.3.3
METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS AT DETACHED GARAGE DOOR OPENINGS

SECTION IB-56. Table R602.10.4.1 of Volume IA of the Glendale Building

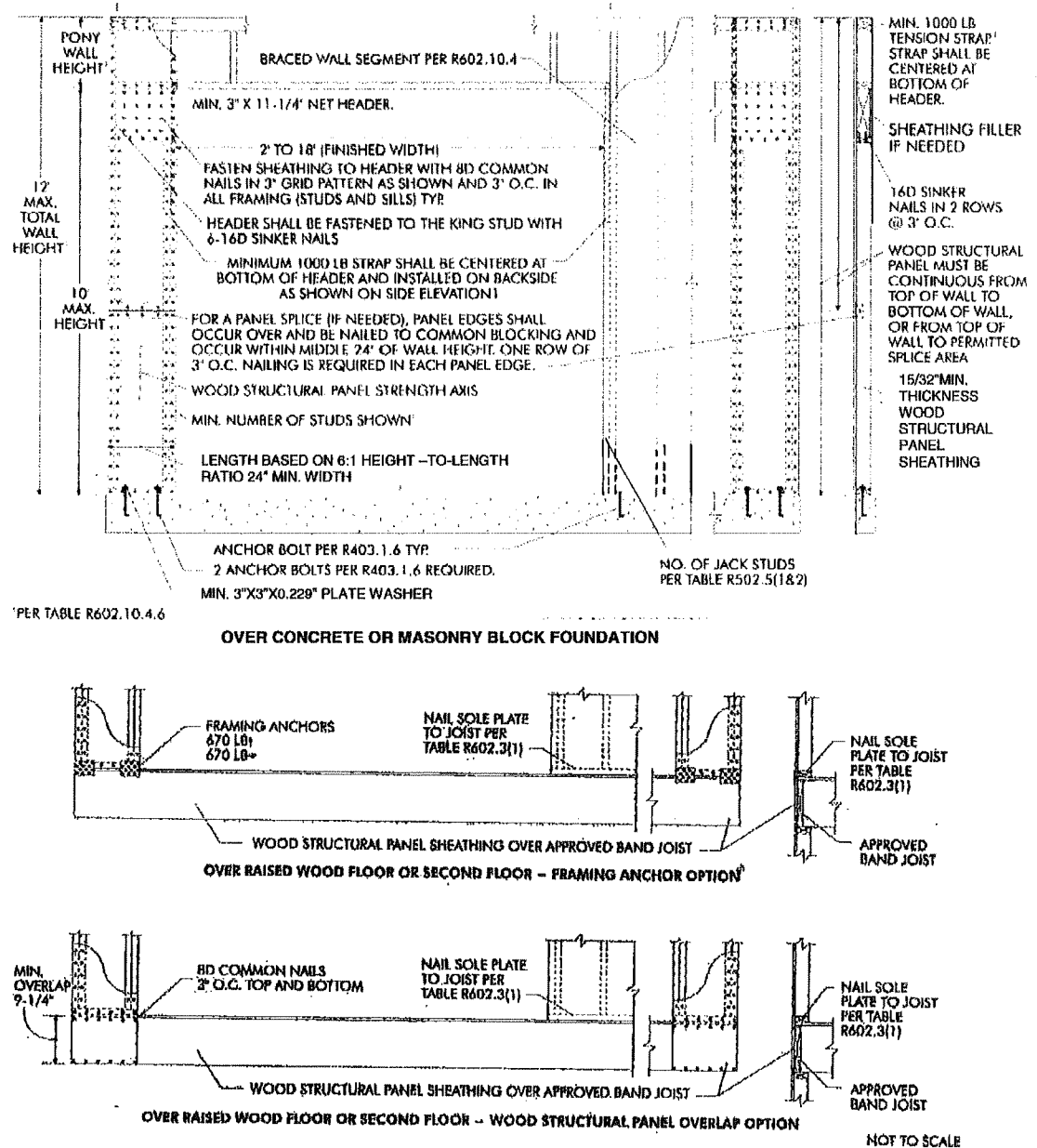
and Safety Code, 2011, is hereby amended to read as follows:

**TABLE R602.10.4.1
CONTINUOUS SHEATHING METHODS**

METHOD	MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA
CS-WSP	Wood structural panel	15/32"		8d common (2" x 0.113") nails at 6" spacing (panel edges) and at 12" spacing (intermediate supports)
CS-G	Wood structural panel adjacent to garage openings and supporting roof load only ^{a,b}	15/32"		See Method CS-WSP
CS-PF	Continuous portal frame	See Section R602.10.4.1.1		See Section R602.10.4.1.1

SECTION IB-57. Figure R602.10.4.1.1 of Volume IB of the Glendale Building

and Safety Code, 2011, is hereby amended to read as follows:



For SI: 1 inch = 25.4 mm, 1 foot = 304.8mm, 1 pound force = 4.448 N.

**FIGURE R602.10.4.1.1
METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION**

SECTION IB-58. Section R602.10.7.1 of Volume IB of the Glendale Building and Safety Code, 2011, regarding braced wall panel support for Seismic Design Category D₂ is hereby repealed:

SECTION IB-59. Section R606.2.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R606.2.4 Parapet walls. Unreinforced *solid masonry* parapet walls shall not be less than 8 inches (203 mm) thick and their height shall not be less than 8 inches (203mm) thick and their height shall not exceed four times their thickness. Unreinforced hollow unit masonry parapet walls shall be not less than 8 inches (203 mm) thick, and their height shall not exceed three times their thickness. Masonry parapet walls in areas subject to wind loads of 30 pounds per square foot (1.44 kPa) or located in Seismic Design Category D₀, D₁ or D₂, or on townhouses in Seismic Design Category C shall be reinforced in accordance with Section R606.12.

SECTION IB-60. Section R802.8 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R802.8 Lateral support. Roof framing members and ceiling joists having a depth-to-thickness ratio exceeding 2 to 1 based on nominal dimensions shall be provided with lateral support at points of bearing to prevent rotation. For roof rafters with ceiling joists attached per Table R602.3(1), the depth-thickness ratio for the total assembly shall be determined using the combined thickness of the rafter plus the attached ceiling joist.

Exceptions: Roof trusses shall be braced in accordance with Section R802.10.3.

SECTION IB-61. Table R802.5.1(9) of Volume IB of the Glendale Building

and Safety Code, 2011, is hereby amended to read as follows:

TABLE R802.5.1(9)
RAFTER/CEILING JOIST HEEL JOINT CONNECTIONS^{a, b, c, d, e, f, h}

RAFTER SLOPE	RAFTER SPACING (Inches)	GROUND SNOW LOAD (psf)															
		20 ^d				30				50				70			
		Roof span (feet)															
		12	20	28	36	12	20	28	36	12	20	28	36	12	20	28	36
		Required number of 16d common nails ^{a, b} per heel joint splices ^{c, d, e, f}															
3:12	12	4	6	8	10	4	6	8	11	5	8	12	15	6	11	15	20
	16	5	8	10	13	5	8	11	14	6	11	15	20	8	14	20	26
	24	7	11	15	19	7	11	16	21	9	16	23	30	12	21	30	39
4:12	12	3	5	6	8	3	5	6	8	4	6	9	11	5	8	12	15
	16	4	6	8	10	4	6	8	11	5	8	12	15	6	11	15	20
	24	5	8	12	15	5	9	12	16	7	12	17	22	9	16	23	29
5:12	12	3	4	5	6	3	4	5	7	3	5	7	9	4	7	9	12
	16	3	5	6	8	3	5	7	9	4	7	9	12	5	9	12	16
	24	4	7	9	12	4	7	10	13	6	10	14	18	7	13	18	23
7:12	12	3	4	4	5	3	3	4	5	3	4	5	7	3	5	7	9
	16	3	4	5	6	3	4	5	6	3	5	7	9	4	6	9	11
	24	3	5	7	9	3	5	7	9	4	7	10	13	5	9	13	17
9:12	12	3	3	4	4	3	3	3	4	3	3	4	5	3	4	5	7
	16	3	4	4	5	3	3	4	5	3	4	5	7	3	5	7	9
	24	3	4	6	7	3	4	6	7	3	6	8	10	4	7	10	13
12:12	12	3	3	3	3	3	3	3	3	3	3	3	4	3	3	4	5
	16	3	3	4	4	3	3	3	4	3	3	4	5	3	4	5	7
	24	3	4	4	5	3	3	4	6	3	4	6	8	3	6	8	10

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

a. 40d box nails shall be permitted to be substituted for 16d common nails.

b. Nailing requirements shall be permitted to be reduced 25 percent if nails are clinched.

c. Heel joint connections are not required when the ridge is supported by a load-bearing wall, header or ridge beam.

d. When intermediate support of the rafter is provided by vertical struts or purlins to a loadbearing wall, the tabulated heel joint connection requirements shall be permitted to be reduced proportionally to the reduction in span.

e. Equivalent nailing patterns are required for ceiling joist to ceiling joist lap splices.

f. When rafter ties are substituted for ceiling joists, the heel joint connection requirement shall be taken as the tabulated heel joint connection requirement for two-thirds of the actual rafter-slope.

g. Applies to roof live load of 20 psf or less.

h. Tabulated heel joint connection requirements assume that ceiling joists or rafter ties are located at the bottom of the attic space. When ceiling joists or rafter ties are located higher in the attic, heel joint connection requirements shall be increased by the following factors:

H_C/H_R	Heel Joint Connection Adjustment Factor
1/3	1.5
1/4	1.33
1/5	1.25
1/6	1.2
1/10 or less	1.11

where:

H_C = Height of ceiling joists or rafter ties measured vertically above the top of the rafter support walls.

H_R = Height of roof ridge measured vertically above the top of the rafter support walls.

i. Edge distance, end distances spacing for nails shall be sufficient to prevent splitting of the wood.

SECTION IB-62. Section R803.2.4 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R803.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms shall conform with Section R503.2.4

SECTION IB-63. Section R902.1 of Volume 1B of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. A *minimum* Class A and B roofing shall be installed in areas designated by *this section*. Classes A and B roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E108. The roof-covering assembly includes the roof deck, underlayment, interlayment, insulation and covering which is assigned a roof covering classification. No wood roof covering material shall be installed. See Section 327 for roofing requirements in Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas).

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.

SECTION IB-64. Section R902.1.3 of Volume 1B of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R902.1.3 Roof coverings in all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B. No wood roof covering shall be installed.

SECTION IB-65. Section R905.3.7 of Volume 1B of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R905.3.7 Application. Tile shall be applied in accordance with this chapter and the manufacturer's installation instructions, based on the following:

1. Climatic conditions.
2. Roof slope.
3. Underlayment system.
4. Type of tile being installed.

Clay and concrete roof tiles shall be fastened in accordance with this section and the manufacturer's installation instructions. Perimeter tiles shall be fastened with a minimum of two fasteners per tile. Tiles with installed weight less than 9 pounds per square foot (0.4 kg/m²) require a minimum of two fasteners per tile regardless of roof slope. Clay and concrete roof tile attachment shall be in accordance with the manufacturer's installation instructions where applied in areas where the wind speed exceeds 100 miles per hour (45 m/s) and on buildings where the roof is located more than 40 feet (12192 mm) above

grade. In areas subject to snow, a minimum of two fasteners per tile is required. In all other areas, clay and concrete roof tiles shall be attached in accordance with Table R905.3.7.

TABLE R905.3.7
CLAY AND CONCRETE TILE ATTACHMENT

SHEATHING	ROOF SLOPE	NUMBER OF FASTENERS
Solid without battens	All	Two per tile
Spaced or solid with battens and slope <5:12	Fasteners not required	—
Spaced sheathing without battens	$5:12 \leq \text{slope} < 12:12$	Two per tile/every other row
	$12:12 \leq \text{slope} < 24:12$	Two per tile

SECTION I-66. Section R907.7 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

R907.7 Roof sheathing. When finish roofing material is removed to the existing space sheathing, a minimum of 3/8 inch (9 mm) thick plywood sheathing shall be installed. See Section 327 for roof coverings permitted in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas). The new sheathing shall comply with the requirements of Section R803. The sheathing shall be installed such that the edges align over rafters and individual spaced sheathing boards. The sheathing shall be attached to the existing spaced sheathing with 6d common nails at 6 inches (147 mm) on center at supported edges and 6d common nails at 12 inches (294 mm) on center at intermediate supports.

SECTION IB-67. Section R908 of Volume IB of the Glendale Building Code, 2011, is hereby added to read as follows:

SECTION R908

SOLAR PHOTOVOLTAIC PANELS/MODULES

R908.1 Solar photovoltaic panels/modules. Solar photovoltaic panels/modules installed upon a roof or as an integral part of a roof assembly shall comply with the requirements of Volume IA and Volume VI of this Code.

908.1.1 Structural fire-resistance. The structural frame and roof construction supporting the load imposed upon the roof by the photovoltaic panels/modules shall comply with the requirements of Table R302.1(1), R302.1(2) and Table R302.6.

SECTION IB-68. Section R1001.3.1 of Volume IB of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

R1001.3.1 Vertical reinforcing. For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars adequately anchored into the concrete foundation shall be placed between wythes of *solid masonry* or within the cells of hollow unit masonry and grouted in accordance with Section R609. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1016 mm) wide, two additional No. 4 vertical bars shall be provided for each additional flue incorporated into the chimney or for each additional 40 inches (1016 mm) in width or fraction thereof.

SECTION IB-69. Appendix H, PATIO COVERS, of the California Residential Code, 2010 edition, published and copyrighted by the International Code Council is hereby adopted into Volume 1B of the Glendale Building and Safety Code, 2011, by reference and by such reference is incorporated herein as if fully set forth.

SECTION IB-70. Appendix Chapter A1 of the California Existing Building Code is hereby adopted by reference to apply to residential occupancies and to that extent is incorporated into Volume IB of the Glendale Building and Safety Code, 2011.

VOLUME II. PLUMBING STANDARDS

SECTION II-1. Volume II of the Glendale Building and Safety Code, 2011, is amended as hereinafter provided.

SECTION II-2. Chapter 1 Division II, Section 103.4.1 of Volume II of the Glendale Building and Safety Code, 2011, is amended to read as follows:

103.4.1. Permit Fees. Fees for permits, investigation, and other fees for services shall be established or modified by resolution of the City Council. The schedule for such fees shall remain on file and be available in the office of the building official. The building official shall review the fees charged for such services at least once annually and shall, with the approval of the City Manager, recommend changes to the Council when the costs for such services make it appropriate.

SECTION II-3. Chapter 1 Division II, Section 103.4.2 of Volume II of the Glendale Building and Safety Code, 2011, is amended to read as follows:

103.4.2. Plan Review Fees. When a plan or other data is required to be submitted by Section 103.2.2, a plan review fee shall be paid at the time of submitting plans and specifications for review.

The plan review fees for plumbing work shall be at a rate specified by resolution of the City Council.

The plan review fees specified in this subsection are separate fees from the permit fees specified in this section and are in addition to the permit fees.

When plans are incomplete or changed so as to require additional review, an additional fee shall be charged at a rate specified by resolution.

Section II-4. Chapter 1 Division II, Section 104 of Volume II of the Glendale Building and Safety Code, 2011 is added to read as follows:

SECTION 104

BUILDING AND FIRE BOARD OF APPEALS

In order to hear and decide appeals of orders, decisions and determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a joint Building and Fire Board of Appeals in accordance with Chapter 1 Division II, Section 113 of Volume IA of this code.

SECTION II-5. Section 815 of Volume II of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

815. Water Softener Using Dry Wells for Discharge. Water softener systems using dry wells for the discharge of effluents are prohibited.

Exception: Systems with regeneration cycles discharging quantities of total dissolved solids that do not exceed those stipulated in the water quality objectives set by the Regional Water Quality Control Board when approved by the building official.

VOLUME III. MECHANICAL STANDARDS

SECTION III-1. Volume III of the Glendale Building and Safety Code, 2011, is amended as hereinafter provided.

SECTION III-2. Chapter 1 Division II, Section 110 of Volume III of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

110.0 Building and Fire Board of Appeals.

110.1. General. In order to hear and decide appeals of orders, decisions or determinations made by the building official or the fire code official relative to the application and interpretations of this code, there shall be and is hereby created a joint Building and Fire Board of Appeals in accordance with Chapter 1 Division II, Section 113 of Volume IA of this Code.

SECTION III-3. Chapter 1 Division II, Section 115.2 of Volume III of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

115.2 Permit Fees. Fee for permits, investigation and other fees for services shall be established or modified by resolution of the City Council. The schedule for such fees shall remain on file and be available in the office of the building official. The building official shall review the fees at least once annually and shall, with the approval of the City Manager, recommend changes to the council when the costs for such services make it appropriate.

SECTION III-4. Chapter 1 Division II, Section 115.3 of Volume III of the Glendale Building and Safety Code, 2011, is amended to read as follows:

115.3 Plan Review Fees. When plans or other data are required to be submitted by Section 113.2, a plan review fee shall be paid at the time of submitting plans and specifications for review. The plan review fees for mechanical work shall be charged at a rate specified by resolution of the City Council. The plan review fees specified in this subsection are separate fees from the permit fees specified in Section 115.2 and are in addition to the permit fees. When plans are incomplete or changed so as to require additional plan review, an additional plan review fee shall be charged at a rate specified by resolution of the City Council.

VOLUME IV. ELECTRICAL STANDARDS

SECTION IV-1. Volume IV of the Glendale Building and Safety Code, 2011, is amended as hereinafter provided.

SECTION IV-2. Section 90.10 of Volume IV of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

90.10. Materials and equipment. All electrical materials, devices, appliances and equipment shall be in conformity with provisions of this Code, and shall be in conformity with approved standards for safety to life and property. Listing, labeling or marking, as conforming to the standards of Underwriters Laboratories, Inc., the American National Standard Institute, Inc., the United States Bureau of Mines, or any nationally recognized testing organization approved by the building official, shall be prima facie evidence of conformity with approved standards for safety to life and property

(A) Alternate materials and methods of construction. The provisions of this Code are not intended to prevent the use of any material or method of construction not specifically prescribed by this Code, provided any such alternate has been approved as hereinafter provided.

(B) The building official may approve any such alternate provided the building official finds that the material, method, or work offered is for the purpose intended at least the equivalent of that prescribed in this code in quality, strength, effectiveness, durability and safety.

(C) The building official shall require that sufficient evidence be submitted to substantiate any claims that may be made regarding its quality, strength, effectiveness, durability and safety.

SECTION IV-3. Section 90.11 of Volume IV of the Glendale Building and Safety Code, 2011 is hereby added to read as follows:

90.11. Revocation of approval for use. Any approval granted by the building official may be revoked if the electrical materials, devices, or appliances are found to be hazardous to life and property for the purpose used or intended or do not conform with the standards under which said materials, devices, or appliances were approved for use.

SECTION IV-4. Section 90.12 of Volume IV of the Glendale Building and Safety Code, 2011 is added to read as follows:

90.12 Building and Fire Board of Appeals. In order to hear and decide appeals of orders, decisions and determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a joint Building and Fire Board of Appeals in accordance with Chapter 1 Division II, Section 113 of Volume IA of this code.

SECTION IV-5. Article 91 of Volume IV of the Glendale Building and Safety Code, 2011 is added to read as follows:

ARTICLE 91

ENFORCEMENT

91.1. Enforcement.

The provisions of this section 91.1 shall be as contained in Volume IA of this Code.

Sec. 91.2. Unsafe Electrical Wiring.

(A) Public Nuisance. Notwithstanding any other provisions of this Code , all electrical service to any electric wiring devices, appliances, or equipment which is found to be dangerous to life or property because they are defective

or improperly installed or used is, for the purpose of this section, unsafe electrical wiring. All such unsafe electrical wiring is hereby declared to be a public nuisance and shall be abated by replacement, repair, or removal in accordance with the procedure specified in subsection (B).

(B) Notice and Order. The building official shall first give a notice and order directed to the owner of record of the building or premises. The notice and order shall be as contained in Chapter 1 Division II, section 116.3 of Volume IA of this Code.

(C) Manner of Giving Notice. The notices required by 91.2(B) shall be given in the manner described in Appendix Chapter 1 Section 116.4 of Volume IA of this code.

(D) Authority to Disconnect Electric Service. The building official shall have the authority to cut or disconnect any wire in cases of emergency for safety to life or property or where such wire may interfere with the work of the fire department. The building official is hereby authorized to disconnect or order discontinuance of electrical service to any electric wiring devices, appliances or equipment upon expiration of the time fixed by the order of the building official pursuant to subsection (B) of this section 91.2, when such wiring, device, appliances or equipment is maintained or used in violation of that order.

Sec. 91.3. Violations and Penalties. Notwithstanding any other provisions of this Code, no person shall install, alter, use or maintain any wiring, devices, appliances or equipment in violation of any of the provisions of this Code. Maintenance of electric

wiring, devices, appliances or equipment which was unlawful at the time altered or installed, and which would be unlawful under this Code if altered or installed after the effective date of this Code shall constitute a continuing violation. Penalties for violating any of the provisions of this Code shall be contained in Chapter 1 Division II, Section 114.4 of Volume IA of this Code.

SECTION IV-6. Article 92 of Volume IV of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

ARTICLE 92

PERMITS AND FEES

Sec. 92.1. Installation Permit – Required, Notwithstanding any other provisions of this Code, no electric wiring devices, appliances or equipment shall be installed within or on any building, structure or premises nor shall any alteration or addition be made in any such existing wiring, devices, appliances or equipment without first securing a permit therefor from the building official except that no permit shall be required in the following cases:

- (a) The replacement of lamps or the connection of a portable appliance to suitable receptacles which have been permanently installed.
- (b) The installation, alteration or repair of wiring, devices, appliances or equipment for the operation of signals or the transmission of intelligence, where such wiring, devices, appliances or equipment operates at a voltage not exceeding twenty-five volts between conductors, except as otherwise required in this Code.
- (c) The installation, alteration or repair of electric wiring, devices, appliances and

equipment installed by or for a public service corporation, including the Water and Power division of the City, for the use of such a corporation in the generation, transmission, distribution or metering of electrical energy or for the use of such a corporation in the operation of signals or the transmission of intelligence.

- (d) The installation of temporary wiring for testing electrical apparatus or equipment.
- (e) Electric wiring expressly declared to be exempt from the provisions of this article by any other provisions hereof.
- (f) Installation of any portable motor or other portable appliance energized by means of a cord or cable having an attached block end where such cord or cable is permitted by other provisions of this Code.
- (g) Repair of any fixed motor or other appliance, or replacement of the same by another motor or appliance of the same rating and in the same location.
- (h) Christmas tree or similar tree lighting.
- (I) Repair or replacement of current-carrying parts of any switch, contractor or control device.
- (j) Repair of any over current device or lamp holder, or replacement of the same by another over current device or lamp holder of the same rating and in the same location.
- (k) Repair or replacement of electrodes of transformers for signs or marquees.
- (l) Repair or replacement of cords or cables or cord pendants allowed by other provisions of this Code.

(m) Taping of joints.

(n) Removal of electric wiring.

(o) Any similar minor repair or replacement determined by the building official not to involve any hazard to life or property.

The foregoing exemptions from permit requirements shall not be deemed to permit or allow any electric wiring to be done in a manner contrary to other provisions of this Article.

Sec. 92.2. Application. The provisions of this section 92.2 shall be as provided in Volume IA of this Code.

Sec. 92.3. Approval of Deviations. The provisions of this section 92.3 shall be as provided in Volume IA of this Code.

Sec. 92.4. Expiration of Permits. The provisions of this section 92.4 shall be as provided in Volume IA of this Code.

Sec. 92.5. Fees. The provisions of this section 92.5 shall be as provided in Volume IA of this Code.

Sec. 92.6. Used Materials. Previously used materials shall not be reused in any work without written approval obtained in advance from the building official.

Sec. 92.7. Inspection of Installation -- Notice to be Given: Time of Inspection. The provisions of this section 92.7 shall be as provided in Volume IA of this Code.

Sec. 92.8. Approval - Generally. The provisions of this section 92.8 shall be as provided in Volume IA of this Code.

Sec. 92.9. For Temporary Use. When the building official authorizes the connection and use of temporary wiring, such permission shall be issued to expire at a time to be

stated therein and shall be revocable by the building official if he or she finds that the connection and use of the temporary work is dangerous to life or property or that the work is defective or defectively installed.

Sec. 92.10. For Parts of Incomplete Installation. Preliminary approval may be granted authorizing the connection and use of certain specified portions of an incomplete installation. Such authorization shall be revocable by the building official if he or she finds that the connection and use of the portion of the incompleted installation are dangerous to life or property or that the portions previously authorized for use are defective or defectively installed.

Sec. 92.11. Wiring to be Hidden from View. When any part of a wiring installation is to be hidden from view by the permanent placement of parts of the building the person installing the wiring shall notify the building official and such parts of the wiring installations shall not be concealed until they have been inspected and approved by the building official provided that on large installations where the concealment of parts of the wiring proceeds continuously the person installing the wiring shall cause inspections to be made periodically during the progress of the work. The building official shall have the power to remove or require the removal of any obstruction that prevents proper inspection of any electrical equipment.

Sec. 92.12. Connection of Installation to Power Source Generally - Necessity to meet Requirements. Except where work is done under a maintenance electrician's permit, no person shall make connection from a source of electrical energy or supply electric service to any electric wiring devices, appliances, or equipment for the installation of which a permit is required unless such person shall have obtained satisfactory evidence that such

wiring devices, appliances or equipment is in all respects in conformity with all applicable legal provisions.

Sec. 92.13. Disconnection and Reconnection to Power Source. No person shall make connections from a source of electrical energy or supply electrical service to any electric wiring devices, appliances or equipment which has been disconnected or ordered to be disconnected by the building official or the use of which has been ordered by the building official to be discontinued until an approval has been obtained from the building official authorizing the reconnection and use of such wiring devices, appliances or equipment.

The building official shall notify the serving utility of such order to discontinue use.

SECTION IV-7. Section 690.86 of Volume IV of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

690.86. Solar photovoltaic panels/modules. Solar photovoltaic panels/modules shall comply with the requirements of this code and Volume VI of the Glendale Building and Safety Code, 2011.

VOLUME V. HOUSING STANDARDS

SECTION V-1. Volume V of the Glendale Building and Safety Code, 2011, is amended as hereinafter provided.

SECTION V-2. Section 203 of Volume V of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

SECTION 203

BUILDING AND FIRE BOARD OF APPEALS

203.1. General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretations of this Code, there shall be and is hereby created a joint Building and Fire Board of Appeals in accordance with Chapter 1 Division II, Section 113 of Volume IA of this Code (hereinafter referred to as the "board").

203.2. Limitations of Authority. The board shall have no authority relative to interpretation of the administrative provisions of this code and the board shall not be empowered to waive requirements of this code.

SECTION V-3. Section 1101.2 of Volume V of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

1101.2. Notice and Order. The building official shall issue a notice and order directed to the record owner of the building. The notice and order shall contain the following:

1. The street address and a legal description sufficient for identification of the premises upon which the building is located.
2. A statement that the building official has found the building to be

unsafe, with a brief and concise description of the conditions found to render the building unsafe.

3. A statement of the action required to be taken as determined by the building official.

3.1 If the building official has determined that the building or structure must be repaired, the order shall require that all required permits be secured therefore and the work physically commenced within such time (not to exceed 60 days from the date of the order) and completed within such time as the building official shall determine is reasonable under all of the circumstances.

3.2 If the building official has determined that the building or structure must be vacated, the order shall require that the building or structure shall be vacated within a certain time from the date of the order as determined by the building official to be reasonable.

3.3 If the building official has determined that the building or structure must be demolished, the order shall require that the building be vacated within such time as the building official shall determine reasonable (not to exceed 60 days from the date of the order), that all required permits be secured therefore within 60 days from the date of the order and that the demolition be completed within such time as the building official shall determine is reasonable.

4. Statements advising that if any required repair or demolition work (without vacation also being required) is not commenced within the time specified, the

building official ~~(i)~~ will order the building vacated and posted to prevent further occupancy until the work is completed

5. Statements advising (i) that any person having any record title or legal interest in the building may appeal from the notice and order or any action of the building official to the Building and Fire Board of Appeals, provided the appeal is made in writing as provided in this Code, and filed with the building official within 30 days from the date of service of such notice and order, and (ii) that failure to appeal will constitute a waiver of all right to an administrative hearing and determination of the matter.

VOLUME VI
FIRE STANDARDS

SECTION VI-1. Volume VI of the Glendale Building and Safety Code, 2011, is amended as hereinafter provided.

SECTION VI-2. Chapter 1, ADMINISTRATION, of the International Fire Code, 2009 edition, published and copyrighted by the International Code Council, and portions of which have been amended by the State Fire Marshal, is hereby adopted by reference into Volume VI of the Glendale Building and Safety Code, 2011, and by such reference, is incorporated herein as if fully set forth.

SECTION VI-3. Section 103.5 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

103.5 Fire investigation unit. A fire investigation unit is established within the fire department under the direction of the fire code official. All members of the fire investigation unit shall, upon completion of requirements as set forth in California Penal Code Section 832, or any successor legislation, have the full power, authority, and immunity of a California peace officer to issue citations for violations of this Volume VI of the Building and Safety Code, 2011.

SECTION VI-4. Section 103.6 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby added to read as follows:

103.6 Arrests. In addition to Glendale Fire Department personnel who are employed as arson investigators pursuant to California Penal Code Section 830.37, any other member of the Glendale Fire Department shall have the power to arrest without a warrant whenever said member has reasonable cause to believe that the person to be arrested has committed the crime of misdemeanor arson as defined in California Penal Code Section 450 et seq. and California Code of Regulations, Titles 19, 24, and 25, in his or her presence, pursuant to the authority granted by California Penal Code Section 836.5.

SECTION VI-5. Section 104.1.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

104.1.1 Environmental protection. The Glendale Fire Department is certified by the California Environmental Protection Agency as a Certified Unified Program Agency (CUPA), and is thereby responsible for the implementation and enforcement of regulations and guidelines for the CUPA as described in Section 104.1.1.1. Additionally, the Glendale Fire Department is responsible for the implementation and enforcement of regulations and guidelines for Industrial Waste Discharge Program as described in Section 104.1.1.2, and for the permitting of facilities for Fat, Oil, and Grease Discharge Control as described in Section 105.6.48.

104.1.1.1 CUPA Unified Programs. The following CUPA Programs are included in the scope of the Glendale Fire Department's CUPA authority:

1. Hazardous materials handling, release response plans and inventory Disclosure program (business plans).
2. California accidental release prevention (CalARP) Program.
3. Underground storage tank program pursuant to Health and Safety Code Section 25283 and as that section may be subsequently amended.
4. Aboveground petroleum storage act requirements for spill prevention, control and countermeasure (SPCC) plans pursuant to Health and Safety Code Sections 25502(a)(1) and 25404 and as those sections may be subsequently amended.
5. Hazardous waste generator and onsite hazardous waste treatment (tiered permitting) Programs pursuant to Health and Safety Code Sections 25502(a)(1) and 25404 and as those sections may be subsequently amended..
6. California fire code hazardous material management plans and hazardous material inventory statements pursuant to this Volume VI of the Glendale Building and Safety Code, 2011.

104.1.1.2 Industrial waste discharge control program. The Glendale Fire Department is responsible for the implementation and enforcement of regulations and guidelines to govern the discharge of industrial waste to the sanitary sewer and storm drain systems pursuant to Glendale Municipal Code, 1995, Chapter 13.40, Article V, and as said chapter may be subsequently amended . For the purposes of this Volume VI, "Industrial Waste Control Program" means a program to control the discharge of industrial waste to the sanitary sewer system, treatment plant, and/or storm drain system that could interfere with the operations of said systems and could cause blockage and plugging of pipelines and interfere with normal operation of pumps.

SECTION VI-6. Section 104.12 of Volume VI of the Glendale Building and Safety Code, 2011, is added to read as follows:

104.12 False alarms. The *fire code official* is authorized to assess a service charge, as set forth by resolution, against the person owning or responsible for an alarm system when a fire department response occurs as a result of the third false alarm at the same address or location within any twelve month period, and for each subsequent false alarm thereafter, or against any person who intentionally, or in violation of the law reports, or causes to be reported, a false alarm to any department of the City of Glendale.

SECTION VI-7. Section 105.6.48 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

105.6.48 Additional operational permits. In addition to the permits required by Section 105.6, the following operational permits shall be obtained from the *fire code official*:

- 1. General use permit.** A general use permit for any activity or operation not specifically addressed in this article, which in the judgment of the *fire code official*, is possible or likely to produce conditions hazardous to life or property.

2. **Helicopter landing** at other than an approved airport, heliport or helistop, or use of a helicopter for the purpose of lifting equipment, supplies or any material.

Exceptions:

1. Filming companies when operating with an approved filming permit;
2. Emergency operations by a governmental agency or other approved agency.
3. Occupancies, buildings, and facilities as established or modified by the City Council.
4. **Fat, oil, and grease (FOG) discharge and control permit.** The Glendale Fire Department is responsible for permitting of facilities to govern the discharge of industrial waste into the sanitary sewer and storm drain system pursuant to Sections 13.34.010 through 13.34.100 of the Glendale Municipal Code, 1995 and as those sections may subsequently be amended.

SECTION VI-8. Section 105.7 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

105.7 Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.15.

SECTION VI-9. Section 105.7.15 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby added to read as follows:

105.7.15 Additional construction permits. In addition to the permits required by Section 105.7, the following construction permits shall be obtained from the *fire code official*:

1. Landscaping, irrigation, fuel modification. To install or alter landscaping and irrigation, or to perform fuel modification of hazardous vegetation in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas). See Chapter 49 of this Volume VI of the Glendale Building and Safety Code, 2011.
2. Plan checks and field inspections when required by the *fire code official* and not otherwise addressed in this chapter.
3. Smoke management systems.

SECTION VI-10. Section 108 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

SECTION 108

BUILDING AND FIRE BOARD OF APPEALS

108.1 Board of appeals established. In order to hear and decide appeals of orders, decisions or determinations made by the *building official* or the *fire code official* relative to the application and interpretation of all volumes of this code, there shall be and is hereby created a joint building and fire board of appeals in accordance with Section 113 of Volume I of this Code (hereinafter referred to as the "board").

SECTION VI-11. Section 109.3 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

109.3 Violation penalties. The provisions of this Section 109.3 shall be as provided in Section 114.4 of Volume I of this Code. With the exception of cost recovery for abatement of public nuisances arising from hazardous vegetation and fuel management which is set forth in Chapter 4906 of this Volume VI, the recovery of administrative costs for enforcement of this Code shall be made pursuant to Chapter 2.90 of the Glendale Municipal Code, 1995.

SECTION VI-12. Section 113.3 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

113.3 Work commencing before permit issuance. Any *person* who commences any work, activity or operation requested by this code before obtaining the necessary permits shall be subject to an additional fee double the amount of the permit fee as set forth in Section 105.1, which shall be in addition to the required permit fees.

SECTION VI-13. Section 113.6 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

113.6 Fees for services; establishment; review. The *fire code official* is authorized to collect fees for services established or modified by resolution of the City Council. The *fire code official*

shall review the fees charged for such services at least once annually and may , with the approval of the City Manager, recommend changes to the council when the costs for such services make it appropriate.

SECTION VI-14. Section 202 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to amend the definition of false alarm to read as follows:

FALSE ALARM. The willful and knowing initiation or transmission of a signal, message or other notification of an event of fire when no such danger exists, or the activation of any fire alarm system due to malfunction, mechanical or electrical defect, improper operation or procedure by any person, or a false oral or written report to any department of the City of Glendale that an emergency exists requiring immediate or emergency response by the Glendale Fire Department.

SECTION VI-15. Chapter 3, GENERAL PRECUATIONS AGAINST FIRE, of the International Fire Code, 2009 edition, published and copyrighted by the International Code Council, is hereby adopted by reference into Volume VI of the Glendale Building and Safety Code, 2011, and by such reference, is incorporated herein as if fully set forth.

SECTION VI-16. Section 301.3 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

301.3 Discontinuance of hazardous, offensive, or nuisance conditions. The fire code official is authorized to require the discontinuance of any use, process, equipment, or activity involving open flame, burning, smoking, barbecuing/cooking, or any similar activity regardless of purpose or function, when the fire code official determines that such activity, equipment, or use is hazardous, offensive, or creates a nuisance.

SECTION VI-17. Chapter 5, FIRE SERVICE FEATURES, of the International Fire Code, 2009 edition, published and copyrighted by the International Code Council, is hereby adopted by reference into Volume VI of the Glendale Building and Safety Code, 2011, and by such reference, is incorporated herein as if fully set forth.

SECTION VI-18. Section 504.4 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

504.4 High-rise buildings. New high-rise buildings shall be provided with access features in accordance with this section.

504.4.1 Exit enclosures. All exit enclosures shall extend to the roof through a penthouse. At least one exit enclosure serving all levels of the building shall be designed and constructed as a smoke proof enclosure with vestibules on each level.

Exception: A vestibule is not required at the roof level.

504.4.2 Emergency helicopter landing facility. An emergency helicopter landing facility shall be provided on the roof and shall comply with Section 1107.

SECTION VI-19. Section 504.5 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

504.5 Door signage. When required by the fire code official, interior and exterior doors shall be provided with permanent signs to facilitate fire department emergency access. Signage shall be approved by the fire code official.

SECTION VI-20. Section 505.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

505.1 Address identification. New and existing buildings shall have *approved* address numbers, building numbers or *approved* building identification placed in a position that is plainly legible and visible from the street, road, alley, and walkways giving access to and within the property. These numbers shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 6 inches (152 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) and shall be illuminated in an approved manner. Number height and stroke width shall be increased as needed for legibility based on visibility distance. Where access is by means of a private road and the building cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure.

SECTION VI-21. Section 508.1.4 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

508.1.4 Layout approval. Location, access, and a layout of the *fire command center* and all features required by this section to be contained therein shall be submitted for approval prior to installation. HVAC service to maintain the room in a cool ventilated condition shall be provided. The access door to the room shall be four (4) feet (1219 mm) wide. The door hardware shall be approved by the fire code official. The room shall be completely finished, with finished flooring surface, painted walls, and painted gypsum board ceiling.

SECTION VI-22. Section 508.1.5 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

508.1.5 Required features. The *fire command center* shall comply with NFPA 72 and shall contain the following features:

1. Emergency voice/alarm communication system control unit with printer.
2. Fire department communications system.
3. Fire-detection and alarm system annunciator system incorporating graphic annunciator with matrix, floor plans, and a site plan.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-distribution systems.
6. Fire-fighter's graphic control panel required by Section 909.16 for smoke control systems installed in the building depicting air flows in a graphic sectional view and equipment status indicator.
7. Controls for unlocking *stairway* doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.

10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pumps and on-site water supply status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress, fire protection systems, fire-fighting equipment and fire department access, and the location of fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions.*
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. Elevator fire recall switch in accordance with ASME A17.1.
17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.
18. *Fire Command Centers shall not be used for the housing of any boiler, heating unit, generator, combustible storage, or similar hazardous equipment or storage.*
19. Helicopter landing facility lighting controls and status indicators.
20. Two electrical outlets on each wall connected to the emergency generator.
21. Dry erase board and markers.

SECTION VI-23. Section 604.2.14.1.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

604.2.14.1.1 Fuel supply. An on-premises fuel supply, sufficient for not less than twelve (12) hours of operation at the generator's listed full load shall be provided. *Fire pumps shall be provided with an on-premises fuel supply, sufficient for not less than 8-hour full-demand operation of the rated pump capacity in addition to all other required supply demands in accordance with Section 913, NFPA 20 and this section.* Where fuel supplies require transfer

from a secondary fuel storage tank, the fuel transfer system shall be automatic and provided with redundant fuel pumps to ensure reliability.

SECTION VI-24. Section 605.11 of Volume VI of the Glendale Building Code, 2011, is hereby added to read as follows:

605.11 Solar Photovoltaic Power Systems. Solar photovoltaic power systems shall be installed in accordance with this code, the *International Building Code* and NFPA 70.

Exception:

Detached Group U non-habitable structures (that are open on at least three sides) such as parking shade structures, carports, solar trellises, and similar type structures are not subject to the requirements of this section.

605.11.1 Marking. Marking is required on all interior and exterior DC conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes, and disconnects.

605.11.1.1 Materials. The materials used for marking shall be reflective, weather resistant and suitable for the environment and comply with UL 969. Marking as required in sections 605.11.1.2 through 605.11.1.4 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.

605.11.1.2 Marking content and format. The marking shall contain the following words in all capitals: "WARNING: PHOTOVOLTAIC POWER SOURCE".

605.11.1.3 Main service disconnect. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.

605.11.1.4 Location of Marking. Marking shall be placed on all interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm) within one foot (305 mm) of all turns or bends and within one foot (305 mm) above and below all penetrations of roof/ceiling assemblies and all walls and /or barriers.

605.11.2 Locations of DC conductors. Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.

605.11.3 Access, and pathways for smoke ventilation. Roof access, pathways, and spacing requirements shall be provided in order to ensure access to the roof; provide pathways to specific areas of the roof; provide for smoke ventilation operations; and to provide emergency egress from the roof.

Exceptions:

1. Requirements relating to ridge, hip, and valleys do not apply to roof slopes of two units vertical in twelve units horizontal (2:12) or less.
2. Residential structures shall be designed so that each array is no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in either axis.
3. The fire code official may allow panels/modules to be located up to the ridge when an alternative ventilation method acceptable to the fire code official has been provided or where the fire code official has determined vertical ventilation techniques will not be employed.

605.11.3.1 Roof access points. Roof access points shall be defined as an area that does not place ground ladders over openings such as windows or doors, and are located at strong points of building construction. The access point shall not conflict with overhead obstructions such as tree limbs, wires, or signs.

605.11.3.2 Residential systems for one- and two-family residential dwellings. Access shall be provided in accordance with Sections 605.11.3.2.1 through 605.11.3.2.4

605.11.3.2.1 Residential buildings with hip roof layouts. Panels/modules shall be located in a manner that provides a three foot (914 mm) wide clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. The access pathway shall be located at a structurally strong location on the building capable of supporting the live load of fire fighters accessing the roof.

605.11.3.2.2 Residential buildings with a single ridge. Panels/modules shall be located in a manner that provides two three foot (914 mm) wide access pathways from the eave to the ridge on each roof slope where panels/modules are located.

605.11.3.2.3 Hips and Valleys. Panels/modules shall be located no closer than 18 inches (457 mm) to a hip or a valley if panels/modules are to be placed on both sides of a hip or valley. If the panels are to be located on only one side of a hip or valley that is of equal length, then the panels shall be permitted to be placed directly adjacent to the hip or valley.

605.11.3.2.4 Smoke Ventilation. Panels/modules shall be located no higher than three feet (914 mm) below the ridge in order to allow for fire department smoke ventilation operations.

605.11.3.3 All other occupancies. Access shall be provided in accordance with Sections 605.11.3.3.1 through 605.11.3.3.

Exception:

Where it is determined by the *fire code official* that the roof configuration is similar to a one- or two-family dwelling, the *fire code official may approve* the residential access and ventilation requirements provided in 605.11.3.2.1 through 605.11.3.2.4.

605.11.3.3.1 Access. There shall be a minimum six foot (1829 mm) wide clear perimeter around the edges of the roof.

Exception:

If either axis of the building is 250 feet (76 200 mm) or less, there shall be a minimum four foot (1290 mm) wide clear perimeter around the edges of the roof.

605.11.3.3.2 Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

1. The pathway shall be over areas capable of supporting the live load of fire fighters accessing the roof.
2. The center line axis pathways shall be provided in both axes of the roof. Center line axis pathways shall run where the roof structure is capable of supporting the live load of firefighters accessing the roof.
3. Shall be a straight line not less than four feet (1290 mm) clear to skylights and/or ventilation hatches.
4. Shall be a straight line not less than four feet (1290 mm) clear to roof standpipes.
5. Shall provide not less than four feet (1290 mm) clear around roof access hatch with at least one not less than four feet (1290 mm) clear pathway to parapet or roof edge.

605.11.3.3.3 Smoke Ventilation. The solar installation shall be designed to meet the following requirements:

1. Arrays shall be no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in distance in either axis in order to create opportunities for smoke ventilation operations.
2. Smoke ventilation options between array sections shall be either one of the following:
 - 2.1 A pathway eight feet (2438 mm) or greater width;

2.2 A four foot (1290 mm) or greater in width pathway and bordering roof skylights or smoke and heat vents;

2.3 A 4 foot (1290 mm) or greater in width pathway and bordering four feet (1290 mm) by eight feet (2438 mm) "venting cutouts" every 20 feet 16096 mm) on alternating sides of the pathway.

605.11.4 Ground mounted photovoltaic arrays. Ground mounted photovoltaic arrays shall comply with Sections 605.11 through 505.11.2 and this section. Setback requirements do not apply to ground-mounted, free standing photovoltaic arrays. A clear brush area of 10 feet (3048 mm) is required for ground mounted photovoltaic arrays.

605.11.5 Solar photovoltaic power systems. A construction permit is required to install or modify Solar photovoltaic power systems.

605.11.6 Photovoltaic panels/modules; debris screening. When required by the building official or the fire code official, solar photovoltaic panels/modules installation located in any Wildland-Urban Interface Fire Areas or any High Fire Hazard Area, debris screening shall be provided at the perimeter of the photovoltaic panels/modules with wire mesh, vents, other materials or other devices that meet the following requirements.

1. The dimension of the openings therein shall be a maximum of 1/4-inch (3.2 mm).
2. The material used shall be non-combustible.
3. The material used shall be corrosion resistant.

SECTION VI-25. Section 901.1.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

901.1.1 Aesthetics. Fire-protection systems and equipment shall be designed with attention given to aesthetics. The fire code official shall be authorized to require changes in design or installation with respect to the aesthetics of any installation upon plan review and upon field inspection and acceptance.

SECTION VI-26. Section 901.6 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

901.6 Inspection, testing and maintenance. Fire detection, alarm, extinguishing systems, critical equipment, fire rated assemblies, egress system components, and related equipment and appurtenances shall be maintained in an operative condition at all times, and shall be replaced or repaired where defective. The fire code official is authorized to require periodic inspection, testing and certification of all such systems, equipment and appurtenances. Personnel and concerns shall be qualified to perform the inspection, testing, and certification. In addition to provisions of the applicable test standards, the required certifications specified in Table 901.6 shall be submitted to the fire code official on an annual basis. Nonrequired *fire protection systems* and equipment shall be inspected, tested and maintained or removed upon approval of the fire code official.

SECTION VI-27. Table 901.6 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

TABLE 901.6 REQUIRED CERTIFICATION SUBMITTAL INTERVALS AND QUALIFICATIONS¹

	SEMI ANNUAL	ANNUAL	TRIENNIAL	EVERY 5 YEARS
ENGINEERED FIXED EXTINGUISHING SYSTEM (2 or 6)				
Dry Chemical System	X			
Carbon Dioxide System		X		
Halogenated System		X		
Clean Agent System		X		
Commercial Cooking Equipment	X			
Wet Chemical Extinguishing System	X			
STANDPIPE SYSTEMS (2 or 6)		X		X
AUTOMATIC FIRE SPRINKLER SYSTEMS (2 or 6)		X		X
AUTOMATIC AND / OR MANUAL FIRE ALARM SYSTEMS (9)		X		
MISCELLANEOUS				
Private Fire Hydrants (2 or 10)		X		
Single Station Smoke Alarms (3 or 7)		X		
Fire Extinguishers (6)		X		
Dedicated Smoke Control System (4)	X			
Non-Dedicated Smoke Control System (4)		X		

Emergency and Standby Power Systems (3)		X		
Electrical Bus: Torque and Electrical Testing (3)			X	
Electrical Bus: Infrared Testing (3)		X		
Fire Doors and Shutters (5 or 8)		X		
Fire Escape (8)		X		

1. Other concerns or individuals may be qualified to test and certify that are not listed, subject to approval of the fire code official.
2. State Licensed Fire Protection Contractor (C-16)
3. State Licensed Electrical Contractor (C-10)
4. State Licensed HVAC Contractor (C-20)
5. May be performed by Owner
6. Licensed by the State Fire Marshal
7. 25 or less units, qualified owner may perform test
8. State Licensed General Contractor (A or B)
9. State Licensed Electrical Contractor (C-10) and, for systems installed after 1989, holding the U.L. Certificate for the building fire alarm system
10. State Licensed Plumbing Contractor (C-36)

SECTION VI-28. Section 901.10 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

901.10 Critical equipment.

901.10.1 Definitions. Critical Equipment. Such mechanical and electrical equipment necessary for the operation of life safety systems, or any other equipment needed to meet the fire and life safety requirements of a building. Examples of critical equipment include, but are not limited to, emergency generator systems, smoke control systems, fire pumps, etc.

901.10.2 Locations. Critical equipment shall be located as close as practical to the ground floor, but not be located on floors above the ground floor.

Exceptions:

1. Equipment that by function must be located above the ground floor.
2. When approved by the fire code official.

901.10.3 Supervision. All critical equipment shall be provided with a means of supervision, including electronic supervision, lockouts, and other means as approved by the fire code official.

901.10.4 Ventilation. When the proper operation of critical equipment is dependent upon ventilation, the ventilation system shall be so arranged as to ensure continuous reliable operation. Ducts shall be provided within rated shafts without fire or smoke dampers that may impact equipment operation.

901.10.5 Signage and graphics.

901.10.5.1 General. Critical equipment in buildings shall be identified with permanent signage indicating the equipment is critical for fire and life safety, identify the system and component appropriately, and any other pertinent information such as contacting the building engineer prior to servicing, lock-out/tag-out procedures, etc. Signage shall be approved by the fire code official.

901.10.5.2 Shut-offs. All service disconnects, circuit breakers, control valves, or other means of disconnection shall be identified with signage in accordance with Section 901.10.5.1

901.10.5.3 System graphics. Custom made, permanent system graphics shall be provided which show the system in schematic, identifying main component locations, a narrative system description, matrix of operations, and any other pertinent notes and instructions for firefighters. The graphics shall be specifically designed for responding firefighting and inspections. Additional information may be required to accommodate routine maintenance and testing personnel. All graphics shall be approved by the fire code official.

SECTION VI-29. Section 903.2 and all subsections of Volume VI of the Glendale Building and Safety Code, 2011, regarding where automatic sprinkler systems are required, is hereby amended to read as follows:

903.2 Where required. *Approved automatic sprinkler systems* in new and existing buildings and structures shall be provided in accordance with this section.

Exceptions:

1. When approved by the fire code official, spaces or areas in telecommunications buildings used exclusively for telecommunication equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm system and are separated from the remainder of the building by fire barriers consisting of not less than one-hour fire-resistance-rated walls and two-hour fire-resistance-rated floor/ceiling assemblies.
2. *Automatic fire sprinkler protection for fixed guideway transit systems shall comply with Section 903.2.17.*

903.2.1 New occupancies. An automatic sprinkler system shall be installed in all new occupancies.

Exceptions:

1. Group B, Group F Divisions 1 and 2, and Group M occupancies, less than 1000 total square feet (92.9 m²).
2. Group S Division 1 occupancies not classified as motor vehicle repair garages less than 1000 total square feet (92.9 m²).
3. Group S Division 2 occupancies not classified as parking garages less than 1000 total square feet (92.9 m²).

903.2.2 Existing occupancies. An automatic sprinkler system shall be installed and maintained in all existing occupancies as follows:

1. Throughout existing and new sections of any existing building whenever total additions result in an increase of more than 1000 square feet (92.9 m²) in the total floor area, including mezzanines or additional stories, regardless of ownership. Additions shall be cumulative with each application for building permit within the previous five years.

Exception: Group R, Division 3 occupancies.

2. Throughout existing and new sections of any existing building whenever alterations exceed fifty percent (50%) of the replacement value, as determined by the building official. Alteration values shall be cumulative with each application for a building permit within the previous five years.

Exception: Expenditures for tenant improvements, maintenance and repairs such as interior and exterior painting, carpeting, interior window coverings, drapes, movable partitions, surface re-roofing or plumbing, mechanical and electrical repairs.

3. Throughout existing and new sections of any existing building for which there is an occupancy classification change to a more hazardous use, as determined by the fire code official or building official.
4. Throughout any existing Group R Division 2 occupancy being subdivided to condominium units.
5. Existing high-rise buildings. "Existing high-rise buildings," as defined in Volume VI, Section 202 of the Glendale Building and Safety Code, 2011, shall have an automatic sprinkler system installed and operational throughout.
6. Existing mid-rise buildings. Existing mid-rise buildings shall have an automatic fire sprinkler system installed and operational throughout. For the purpose of this section, "mid-rise building" means any building six or more stories in height or more than 55 feet (16,764 mm) in height and not defined as a high-rise building. Measurement shall be from the underside of the roof or floor above the topmost occupiable space to the lowest fire apparatus access road level or building access, whichever is lower.

Exception: Open parking garages.

7. Existing low-rise building. Existing low-rise buildings shall have an automatic fire sprinkler system installed and operational throughout. For the purpose of this section, "low-rise building" means any building four or more stories in height but less than 55 feet (16,764 mm) in height from the lowest level of Fire Department access. Measurement shall be from the underside of the roof or floor above the topmost occupiable space to the lowest fire apparatus access road level or building access, whichever is lower.

Exception: Open parking garages.

903.2.2.1 Notification, recordation, enforcement, and standards.

Notification, recordation, enforcement and standards addressed in this Section 903.2.2.1 shall be enforced by the fire code official to ensure compliance with Section 903.2.2, subsections 6, 7, and 8.

1. Notification. Whenever, pursuant to Section 903.2.2, the fire code official determines by inspection that a building does not conform to the minimum requirements of Section 903.2.2, subsection 6, 7 or 8, the fire code official shall prepare a fire/life safety notice in writing that the building be repaired and modified to conform to the minimum requirements of said Sections. The notice shall specify in what manner the building fails to meet the minimum requirements of Section 903.2.2, subsection 6, 7, or 8. It shall direct that plans be submitted, and that necessary permits be obtained not later than one (1) year after the service of the notice, and that necessary corrections be completed not later than three (3) years thereafter for work required under Section 903.2.2, subsection 6, not later than four (4) years thereafter for work required under Section 903.2.2, subsection 7 and not later than five (5) years thereafter for work required under Section 903.2.2, subsection 8. The notice shall be transmitted by the fire code official for enforcement purposes. The fire code official shall serve the notice either personally or by certified or registered mail upon the owner as shown on the last equalized assessment roll and upon the person, if any, in real or apparent charge or control of the building. The provisions of this Section 903.2.2.1 are not intended to prevent the fire code official from also making a determination or issuing an order regarding failure to comply with Section 903.2.2, subsection 6, 7, or 8.

2. Recordation. At the time that the fire code official serves the aforementioned order or notice, the fire code official shall file with the Office of the County Recorder, a certificate stating that the subject building does not meet the minimum fire safety requirements of Section 903.2.2, subsection 6, 7, or 8 and that the owner thereof has been so notified. After all necessary corrective work has been performed; the fire code official shall file with the Office of the County

Recorder, a certificate terminating the status of the subject building as nonconforming to the minimum fire safety requirements of Section 903.2.2, subsection 6, 7, or 8.

3. Enforcement. If the owner or other person in charge and control of the subject building fails to comply with the aforementioned order or notice within the time periods set forth in Section 903.2.2.1, such person is guilty of a misdemeanor punishable by a fine or by imprisonment or both. A person is guilty of a separate offense each day during which he or she commits, continues or permits a violation of Section 903.2.2, subsection 6, 7, or 8. The fire code official shall also order that the building owner or other person in charge and control post a notice of non-conformance. The notice shall be placed in a conspicuous area of the building until all required corrective work has been completed.

SECTION VI-30. Section 903.3.1.2 of Volume VI of the Glendale Building and Safety Code, 2011, regarding NFPA 13R sprinkler systems in Group R buildings, is hereby repealed.

SECTION VI-31. Section 903.3.5.2 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

903.3.5.2 Secondary water supply. A secondary on-site water supply shall be provided for high-rise buildings *and Group I-2 occupancies having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access* in Seismic Design category C, D, E or F as determined by this code. The secondary water supply shall *have a usable capacity of not less than the fire pump's listed flow at 100% for a duration of not less than 30 minutes, the hydraulically calculated sprinkler demand plus 100 gpm (0.006 m³/s) for the inside hose stream allowance, for a duration of not less than 30 minutes or as determined by the sprinkler system design occupancy hazard classification in accordance with NFPA 13, whichever is greater. The Class I standpipe system demand shall not be required to be included in the secondary on-site water supply calculations. In no case shall the secondary on-site water supply be less than 15,000 gallons (56.8m³).*

Exception: Existing buildings.

SECTION VI-32. Section 906.8 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

906.8 Cabinets. Cabinets used to house portable fire extinguishers shall not be locked.

Exceptions:

1. Where portable fire extinguishers subject to malicious use or damage are provided with a means of ready access.
2. In Group I-3 occupancies and in mental health areas in Group I-2 occupancies, access to portable fire extinguishers shall be permitted to be locked or to be located in staff locations provided the staff has keys.

In new construction, fire extinguishers shall be located within recessed or semi-recessed cabinets. In existing occupancies, fire extinguishers shall be located within recessed or semi-recessed cabinets when required by the fire code official. All fire extinguishers in cabinets shall be mounted so that their tops are no more than 48 inches (1219 mm) above the floor with the brackets or hangers included with the fire extinguishers.

Exception: Surface mounted cabinets may be installed when construction material prohibits recessing the cabinet.

SECTION VI-33. Section 906.9.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

906.9.1 Extinguishers weighing 40 pounds or less. Portable fire extinguishers having a gross weight not exceeding 40 pounds (18kg) shall be installed so that their tops are not more than 48 inches (1219 mm) above the floor.

SECTION VI-34. Section 907.7.5 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

907.7.5 Monitoring. Fire alarm systems required by this chapter or by the *California Building Code* shall be monitored by an *approved* supervising station in accordance with NFPA 72 *and this section*. Supervising stations shall be listed by Underwriters Laboratories, Inc.

Exception: Monitoring by a supervising station is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.11.
2. Group I-3 occupancies *shall be monitored in accordance with Section 907.2.6.3.4.*
3. *Automatic sprinkler systems* in one-and two-family dwellings.

SECTION VI-35. Section 907.8.2 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

907.8.2 Certification and record of completion. The permittee shall provide, at no cost to the fire department, the record of completion in accordance with NFPA 72 verifying that the system has been installed and tested in accordance with the *approved* plans and specifications and a copy of a serially numbered certificate issued to the permittee by Underwriters Laboratories, Inc., certifying the system. The certificate shall include the following: the name and address of the protected property; type of system(s); components used; area covered; name and address of alarm service company; and the issue and expiration dates. Certification shall be required for all new systems and for all existing systems that produce three or more false alarm activations within a 12-month period, or systems that become unreliable due to dilapidation or deterioration. The copy of the certificate shall be presented to the fire code official prior to the final inspection. A certificate shall be maintained for the life of the system. The permittee, certificate holder, and maintenance contract holder shall be one and the same unless otherwise approved by the fire code official.

Exception: Group R Division 3 occupancies.

907.8.2.1 Maintenance contract. The permittee shall provide, at no cost to the fire department, a copy of a minimum one year maintenance contract, signed by the building owner, prior to final inspection. The permittee, certificate holder, and maintenance contract holder shall be one and the same unless otherwise approved by the fire code official. A maintenance contract shall be maintained for the life of the system.

Exception: Group R Division 3 occupancies.

907.8.2.2 Identification of certificated systems. All existing and new fire alarm systems for which an Underwriters Laboratories, Inc., certificate has been required shall be identified with an approved, tamper resistant label on the fire alarm control panel. The label shall, at a minimum, show the following: certificate number; the name, address, phone number, and California contractor's license number of the certificate holder; the date of certification and date certification expires; a warning statement to the effect that no person or entity is authorized to perform any work on the system without the express permission and authorization of the contractor/certificate holder, and that the certification may be voided in such case; a statement that a valid certificate is required to be in effect for the life of the system, and; a statement that by order of the fire code official the label shall not be removed.

SECTION VI-36. Section 913.6 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

913.6 Fire pumps and pump rooms.

913.6.1 Pump sizing. Fire pumps shall be sized to meet the required demands based upon 100% of the listed pump capacity.

913.6.2 Pump room. All fire pumps shall be located in a dedicated room. The room shall not be used for any other equipment or use.

913.6.3 High rise buildings. A minimum of two fire pumps independently driven shall be provided for all new high-rise buildings. The pumps shall be arranged and controlled so as to automatically switch should one fail. Each pump shall be provided with a secondary power supply as approved by the fire code official. One or both pumps shall receive their water directly from the municipal water supply.

SECTION VI-37. Section 914.3.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

914.3.1 Combination automatic sprinkler / standpipe system. Buildings and structures shall be equipped throughout with a combination automatic sprinkler/ standpipe system in accordance

with Section 903.3.1.1 and a secondary water supply in accordance with Section 903.3.5.2, and the policies of the fire code official. Standpipes shall provide for a looped redundant sprinkler supply at each floor level. *A sprinkler water-flow alarm-initiating device and a control valve with a supervisory signal-initiating device shall be provided at each of the lateral connections to the risers on each floor.*

SECTION VI-38. Table 1004.1.1 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

**[B] TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	11 gross
Gaming floors (keno, slots, etc.)	8/table
Billiard/Pool Table	
Assembly with fixed seats	See section 1004.7
Assembly without fixed seats	
Concentrated (chairs only-not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allows 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms-other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	20 net
Classroom area	50 net
Shops and other vocational room areas	

Exercise rooms	50 gross
Garment manufacturing	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional area	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot= 0.0929 m²

SECTION VI-39. TABLE 1015.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

**[B] TABLE 1015.1
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

OCCUPANCY	MAXIMUM OCCUPANT LOAD
A,B,E ^a , F ^b ,M,U	49
H-1, H-2, H-3	3
H-4, H-5, I-2.1, I-3, I-4, R, L	10
S	29

- a. Day care maximum occupant load is 10.
- b. Garment manufacturing maximum occupant load is 29.

SECTION VI-40. Section 1031 of Volume VI of the Glendale Building and Safety Code, 2011, is added to read as follows:

1031 Special egress graphics.

1031.1 General. When required by the fire code official, a special egress graphics package shall be incorporated into new and existing structures. Such structures may include parking structures, warehouses, high-rise buildings, mid-rise buildings, complex projects, or when required by the fire code official. The package may include one or more of the following.

1. Oversized exit identification. Signs or graphics shall be provided to assist in identification of exits, and shall be so designed and installed so as to be visible to occupants from a distance of not less than 300 feet (91,440 mm).
2. Supplemental egress graphics. Supplemental egress graphics shall be provided to assist in the orderly and safe evacuation or relocation of people. Such graphics shall be performance based, and may include shoulder-height graphics to assist in way-finding and to identify termination points.
3. Means of egress - finished. Means of egress shall be painted and otherwise finished with building-standard finishes, or as otherwise approved by the fire code official.

SECTION VI-41. Section 1107.9 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows.

1107.9 General design parameters. High-rise helicopter landing facilities shall include the following features:

1. A clear unobstructed landing and take-off area located at the highest roof level with a minimum dimension of 100 feet by 100 feet (30,480 mm by 30,480 mm), and a touch-down pad area having a minimum dimension of 50 feet by 50 feet (15,240 mm by 15,240 mm).
2. If the roof has no parapet wall, and the perimeter of the touch-down pad is not considered to be a safe distance from the edge of the building roof, a guardrail, safety net, or other restrictive barrier shall be provided around the perimeter of the roof, in the area of the touch-down pad, in such a manner so as not to restrict or reduce the pad area.
3. If the touch-down area is located on an elevated platform exceeding 30 inches (762 mm) in height, a barrier shall be provided as in Section 1107.9, subsection 2, around the perimeter of the platform.
4. Two (2) stairs with a width of at least 44 inches (1118 mm) shall be provided for egress and access to the landing touch-down area. Stairs shall be designed and installed in compliance with the requirements of the California Building Code. Stairs shall be located so helicopter personnel will have visual contact with persons using the stairs as best practicable to the satisfaction of the fire code official.
5. Lighting on the roof shall be provided along the entire path between each exit enclosure and the landing facility. Lighting shall meet the requirements of Sections 1006.2 through 1006.4.
6. Landing facility appurtenances such as wind indicating devices and landing area lighting shall be approved by the fire code official.
7. Permanent marking shall be provided to identify the building address and maximum weight limit on the landing and takeoff pad.

SECTION VI-42. Section 2206.2 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

2206.2 Method of storage. *Approved* methods of storage for Class I, II, and IIIA, liquid fuels at motor fuel-dispensing facilities shall be in accordance with Sections 2206.2.1 and 2206.2.5.

SECTION VI-43. Section 2206.2.2 of Volume VI of the Glendale Building and Safety Code, 2011, regarding above-ground fuel dispensing tanks located inside buildings, is hereby repealed.

SECTION VI-44. Section 2206.2.3 of Volume VI of the Glendale Building and Safety Code, 2011, regarding above-ground fuel dispensing tanks located outside buildings, is hereby repealed.

SECTION VI-45. Section 2206.2.4 of Volume VI of the Glendale Building and Safety Code, 2011, regarding above-ground tanks located in above-grade vaults or below-grade vaults, is hereby repealed.

SECTION VI-46. Chapter 25, TIRE REBUILDING AND TIRE STORAGE, of the International Fire Code, 2009 edition, published and copyrighted by the International Code Council, is hereby adopted by reference into Volume VI of the Glendale Building and Safety Code, 2011, and by such reference, is incorporated herein as if fully set forth.

SECTION VI-47. Section 3404.2.9.6.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

3404.2.9.6.1 Locations where above-ground tanks are prohibited.

Storage of Class I, II, and IIIA liquids in above-ground tanks outside of buildings is prohibited.

Exceptions:

1. Storage and dispensing of flammable and combustible liquids in accordance with Section 3406.
2. Combustible liquid tanks used solely to supply generators or fixed mechanical equipment limited to 1,100 gallons (4163.9 L).

3. Tanks exclusively for storage of used motor oil limited to 1,100 gallons (4163.9 L).

SECTION VI-48. Section 3406.2.4 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

3406.2.4 Capacity limitation. The capacity of above-ground tanks containing combustible liquids for the purpose of fueling construction equipment shall not exceed 1,100 gallons (4163.9 L).

SECTION VI-49. Section 4603.1 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

4603.1 Required construction. Existing buildings shall comply with not less than the minimum provisions specified in Table 4603.1 and as further enumerated in Sections 4603.2 through 4603.7.3.

The provisions of this chapter shall not be construed to allow the elimination of *fire protection systems* or a reduction in the level of fire safety provided in buildings constructed in accordance with previously adopted codes.

SECTION VI-50. Section 4603.4 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

4603.4 Sprinkler systems. An *automatic sprinkler system* shall be provided in existing buildings in accordance with Sections 903.2, 4603.4.1 and 4603.4.2.

SECTION VI-51. Section 4603.7.3 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

4603.7.3 Power source.

4603.7.3.1. Single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the

batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. In buildings constructed under editions of the Glendale Building and Safety Code prior to the 1992 edition, smoke alarms other than those located in the corridor or area giving access to each sleeping area are permitted to be solely battery operated provided no construction or construction requiring a permit exceeding \$1000 has taken place, and alterations or repairs do not result in the removal of interior walls or ceiling finishes exposing the structure. This exception does not apply where there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.
2. Group R Division 3 occupancies in existence prior to 1973 may utilize smoke alarms that are solely battery powered provided no construction or construction requiring a permit not exceeding \$1000 has taken place, and alterations or repairs do not result in the removal of interior walls or ceiling finishes exposing the structure. This exception does not apply where there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.
3. Smoke alarms that receive their primary power from the building's existing wiring from a commercial source may remain in service without being provided with battery backup. Any smoke alarm that is replaced for any reason shall be provided with battery backup.

SECTION VI-52. Section 4904.3 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

4904.3 Very High Fire Hazard Severity Zones in LRA. The City of Glendale hereby designates Very High Fire Hazard Severity Zones as designated by the Director of the California

Department of Forestry and Fire Protection and as depicted on a map entitled Very High Fire Hazard Severity Zones in LRA, dated February 27, 2008, or as said map is subsequently amended, and retained on file at the Office of the State Fire Marshal, and more readily available at: http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones.php. This map is intended to supersede other maps previously adopted by the City of Glendale designating high fire hazard areas.

SECTION VI-53. Section 4906 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

SECTION 4906

HAZARDOUS VEGETATION AND FUEL MANAGEMENT

4906.1 Management of hazardous vegetation.

4906.1.1 Statement of legislative intent and purpose. It is the objective of this section to promote and protect the public health, safety and welfare by recognizing that there exists within the City of Glendale a potentially hazardous fire situation created by grass, weeds, shrubs, and trees which are in such condition and location as to provide a ready fuel supply to augment the spread or intensity of fire. It is the intent of this Section 4906 to provide minimum standards to safeguard life, property and the public welfare by insuring that hazardous vegetation or refuse is removed and that all grass, weeds, shrubs, and trees are properly maintained so as to not create a fire hazard within the community, while maintaining sufficient vegetation for aesthetic and soil erosion control purposes. It is the further intent that this Section 4906 apply on a year-round basis to insure the removal and/or proper maintenance of grass, weeds, shrubs, trees and refuse in order to prevent the spread or intensity of fire within the community. Of particular concern is the need to provide adequate "defensible space" in the urban/wildland interface area of the city, referred to as the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas). For purposes of this Section 4906, "defensible space" is that space within 100 feet (30 480 mm) of a building or structure where vegetation capable of causing a fire to spread must be modified

to slow the rate and intensity of an advancing wildfire to provide access by fire and other emergency personnel to defend the building or structure from the threat of fire.

4906.1.2 Prohibition. No person who has any ownership or possessory interest in, or control of a parcel of land shall allow to exist thereon any hazardous vegetation, which, by reason of proximity to a building or structure, constitutes a fire hazard. For purposes of this Section 4906, "hazardous vegetation" means refuse, grass, weeds, shrubs, trees, or other vegetation which, in the opinion of the fire code official, are in such condition and location, or by the unique characteristics of a species, as to provide a ready fuel supply to augment the spread or intensity of a fire.

4906.1.3 Specific requirements. In order to provide sufficient defensible space, each person who has any ownership or possessory interest in, or control of, a parcel of land shall do all of the following:

4906.1.3.1 General. Remove from the property all hazardous vegetation, except as otherwise provided herein, if such hazardous vegetation is within 100 feet (30 480 mm) of a building, within ten (10) feet (3048 mm) of a combustible fence, or within ten (10) feet (3048 mm) of any portion of any highway, street, alley, or driveway improved or used for vehicular travel or other vehicular purposes. Distances up to 200 feet (60 960 mm) or greater from a building or structure, 25 feet or greater from a combustible fence, or 25 feet or greater from a highway, street, alley, or driveway, may be necessary as determined by the fire code official. This shall not require the removal of trees, ornamental shrubbery or plants which are used as ground cover, provided such are landscape materials that are properly irrigated and maintained and do not provide a ready fuel supply to augment the spread or intensity of a fire.

4906.1.3.2 Landscaping, irrigation, and fuel modification.

4906.1.3.2.1 When required. Landscaping, irrigation, and/or fuel modification plans and specifications shall be required to be submitted to the fire code official for any property upon

which a building permit application has been submitted in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas).

Exception: When, in the opinion of the fire code official, the scope of work and/or the site conditions are such that plans and specifications are not deemed necessary.

4906.1.3.2.2 Permits. Permits are required for landscaping, irrigation, or fuel modification of hazardous vegetation in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas). See Chapter 1 Section 105.6.48.

4906.1.3.2.3 Plans and specifications. Plans and specifications shall be submitted to the fire code official for review and approval prior to the issuance of a building permit or the installation or alteration of landscaping and irrigation in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas) or fuel modification of hazardous vegetation in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas).

4906.1.3.2.4 Inspections. All work performed under permit and approved plans in accordance with Section 4906.1.3.2 shall be inspected in accordance with conditions of the approval and Chapter 1.

4906.1.3.3 Adjacent to building--5 feet. Keep all trees, shrubs, and other vegetation or portions thereof, adjacent to or overhanging any building or structure free of dead limbs, branches, and other combustible matter.

4906.1.3.4 Roof clearance. Maintain five (5) feet (1524 mm) of vertical clearance between roof surfaces and portions of trees or shrubs overhanging any building or structure.

4906.1.3.5 Chimney clearance. Maintain no less than ten (10) feet (3048 mm) of vertical and horizontal clearance between the outlet of a chimney or stovepipe and any overhanging portions of trees or shrubs.

4906.1.3.6 Roof surface. Properly maintain the roofs of all buildings or structures free of leaves, needles, twigs, and other combustible matter.

4906.1.3.7 Adjacent to building - 30 feet. Properly maintain all hazardous grass, weeds, and small shrubs within 30 feet (9144 mm) of any building or structure. Hazardous grass, weeds and small shrubs must be maintained less than three (3) inches (76 mm) high. Remove all large native shrubs.

4906.1.3.8 Roads. Maintain trees and large native shrubs, and all hazardous grass, weeds and small shrubs, within 10 feet (3048 mm) of that portion of any highway, street, alley, or driveway which is improved or used for vehicle travel or other vehicular purposes (except for designated fire roads), so that no leafy foliage, twigs, or branches are within six (6) feet (1828 mm) of the ground (but no more than 1/3 of the crown).

4906.1.3.9 Combustible fences. Maintain all hazardous vegetation located within ten (10) feet (3048 mm) of any combustible fence.

4906.1.3.10 Adjacent to building within 30 to 100 feet. Maintain all hazardous vegetation within 100 feet (30 480 mm) of any building or structure. Native grass and small shrubs may be retained on steep slopes (greater than 30% incline) to stabilize the soil and prevent erosion, but may not exceed a height of 18 inches (457 mm). Large native specimen shrubs should be retained where possible, but no closer than an average of 18 feet (5486 mm) apart. Remove all dead foliage, twigs or branches, or live branches within three (3) feet (914 mm) of the ground, from mature trees and shrubs (but no more than 1/3 of the crown).

4906.1.3.11 Cut vegetation and refuse. Remove and/or safely dispose of all cut vegetation and hazardous refuse. Cut grass may be left on the slope to protect the soil if it lays down within three (3) inches (76 mm) of the ground. Cut vegetation may be chipped or mulched and left on the slope up to a depth of 12 inches (30 mm).

4906.1.3.12 Soil erosion control. If the abatement of hazardous vegetation results in the exposure of bare mineral soil, or the soil is exposed to such an extent that increased soil erosion would be likely, or the fire code official determines that the abatement has been excessive and

poses a threat to the public health, safety or welfare, irrigation and landscaping or a suitable erosion control structure must be provided to establish effective soil erosion control.

4906.1.3.13 Minimum requirements. Nothing contained in this section shall be deemed to preclude the fire code official from requiring more than the minimum specific requirements set forth above when the fire code official determines that conditions exist that necessitates greater fire protection measures.

4906.1.3.14 Notice for property owner to abate a public nuisance. The Council finds that hazardous vegetation prohibited under Section 4906.1.3 increases the danger of fire and thus constitutes a public nuisance. If such condition exists, the fire code official shall give written notice to the owner of record and a copy of said notice to any other person with possessory interest in the property, to abate the nuisance within 30 days from the date the notice was sent. The notice shall be sent by certified mail and shall state that the owner is required to abate the nuisance and that if the nuisance is not abated, the city may take further action which may include but is not limited to the following actions: (1) the city, or its contractor, may enter upon the parcel of land and remove or otherwise eliminate or abate the nuisance, (2) upon completion of such work the cost thereof, including administrative costs, shall become a special assessment against that parcel, and (3) upon city council confirmation of the assessment and recordation of said notice, a lien shall attach to the parcel to be collected on the next regular property tax bill levied against the parcel.

4906.2 Abatement and cost recovery procedure.

4906.2.1 Commencement of abatement proceeding. Whenever the fire code official determines that a public nuisance exists, and following mailing of the notice under Section 4906.1.3.14, the abatement proceedings shall commence.

4906.2.2 Abatement proceeding--service of notice of city's intent to abate a public nuisance. In the event the owner or any other person with possessory interest in the property fails to abate hazardous vegetation pursuant to notice given under Section 4906.1.3.14, the fire

code official shall notify the owner of record of the affected property as shown on the latest equalized tax assessment roll, by certified mail, that the city intends to abate the public nuisance. A copy of said notice shall also be mailed to any other person with possessory interest in the property. Said notice shall be sent not less than 15 days prior to the date of the city's proposed abatement. The fire code official shall also post a copy of said notice in a conspicuous location on the property. Failure of any owner or other party having possessory interest in the property to receive a notice hereunder, shall not affect the validity of said notice nor any proceeding taken hereunder, provided that the procedure for service of notice has been followed. The notice of intention shall be in substantially the following form:

**NOTICE OF INTENTION
TO ABATE PUBLIC NUISANCE**

(Name and address of owner of the land)

"As owner shown on the last equalized assessment roll of the land located at (address), you are hereby notified that the undersigned, pursuant to the Glendale Building and Safety Code, 2011, Volume VI, Section 4906 determined that there exists upon said land or building the following condition which constitutes a public nuisance pursuant to the provisions of the Glendale Building and Safety Code, 2011, Volume VI, Section 4906.

"You are hereby notified to abate said nuisance within 15 days from the date of mailing of this notice, and upon your failure to do so, the same will be abated by whatever action necessary by the city and the costs thereof, together with administrative costs, assessed to you as owner of the land on which said public nuisance is located.

"As owner of the land on which said public nuisance is located, you are hereby notified that you may, within 10 days after the mailing of this notice of intention, request in writing to the fire code official a public hearing to contest the finding of the public nuisance on said property. If such a request is not received by the fire code official within such 10 day period, the fire code official shall have the authority to abate said public nuisance and assess the costs as aforesaid

without a public hearing. You may submit a sworn written statement within such 10 day period setting forth your position and intentions regarding the public nuisance on said property with your reasons for denial and such statement shall be construed as a request for hearing at which your presence is not required. You may appear in person at any hearing requested by you or, in lieu thereof, may present a sworn written statement aforesaid in time for consideration at such hearing."

Notice Mailed

(Date)

s/_____

Fire Chief

4906.2.3 Appeals. The owner of the substandard property may appeal the finding of the fire code official by submitting within a ten (10) day period from the date of the mailing of the Notice, to the fire code official, a written request for a hearing before the Building and Fire Board of Appeals.

4906.2.4 Abatement--appeals. Appeals under this section shall be held before the Building and Fire Board of Appeals, which shall hear all facts and testimony it deems pertinent. The facts and testimony may include testimony on the condition of the property and circumstances related to the nuisance. The owner of the land may appear in person at the hearing or present a sworn written statement in time for consideration at the hearing. The Building and Fire Board of Appeals may impose such conditions and take such other action as it deems appropriate to carry out the purpose of the provisions of this section. The decision of the Building and Fire Board of Appeals may be appealed to the city council pursuant to the Uniform Appeals Procedure, Chapter 2.88, Glendale Municipal Code, 1995.

4906.2.5 Procedure. If any order of the Building and Fire Board of Appeals made pursuant to Section 4906 is not complied with within the period designated by the Board, the fire code official may then cause such work to be done to the extent necessary to eliminate the public

nuisance and other substandard conditions determined to exist by the Board and the cost of such work shall be assessed to the property as set forth in California Government Code Section 38773.5 and as that section may subsequently be amended.

4906.2.6 Emergency procedures. Notwithstanding any other provision in Section 4906, when in the opinion of the fire code official, a substandard structure or substandard property is an immediate hazard to life and property, and the fire code official makes written findings to the effect that abatement of such hazard requires action, the fire code official may then cause such work to be done to the extent necessary to eliminate the hazard. The fire code official shall attempt to contact the property owner, to the extent possible, to inform the owner of the work to be done and request said owner's assistance or immediate voluntary removal of the hazard. At the time or shortly thereafter the work is performed, the fire code official shall post a notice and mail to the property owner a statement of the nature of the work performed. Any individual aggrieved by the action of the fire code official under this section, may appeal the determination of the action to the Building and Fire Board of Appeals as set forth in Section 4906.2.4 herein except that the appeal shall be filed within ten (10) days from the date of mailing the notice of work performed.

4906.2.7 Costs. The costs involved in the correction of substandard conditions in any action to abate a nuisance shall be charged against the owner of the property. In addition to the above costs, an administrative processing fee established by resolution of the council of the City of Glendale, shall be assessed against each parcel for fire department costs associated with abatement. An additional inspection fee shall be established by resolution of the council of the City of Glendale for charges related to inspection services for identification of hazardous vegetation. The schedule for such fees shall be maintained on file in the fire department. The fire code official shall review the fees at least once annually, and shall recommend changes to the council when the cost for the services make it appropriate. The fire code official shall notify all parties concerned by certified mail as to the amount of such assessment resulting from such

work. If the total assessment determined as provided for in this section is not paid within thirty (30) days after mailing of such notice, such charges shall be placed as a special assessment on the tax bill for the property pursuant to the procedure set forth in Section 38773.5 of the California Government Code and as that section by subsequently be amended. If applicable, an award of attorney's fees to a prevailing party shall also be assessed.

4906.2.8 Recording of notice of special assessment lien. After performing any hazard abatement work or taking any actions to correct substandard conditions, the fire code official shall cause to be recorded with the County Recorder a "Notice of Special Assessment Lien." Such notice shall summarize the work performed, the cost and date of completion.

4906.2.9 Collection of costs by lien not exclusive remedy. The Council declares that it is the intent of the City of Glendale to collect costs charged against the city after performing any public nuisance or hazard abatement work or correcting substandard conditions by lien or any other legal remedies.

4906.2.9.1 Owner costs. Re-inspection and administrative fees to ascertain code compliance for overdue abatement of previously noticed or cited violations shall be charged against the owner.

4906.2.9.2 Notice of public hearing on lien. If the amount of such expenses as shown in such statement is not paid to the fire code official within thirty (30) days after such notice, the fire code official shall prepare a written notice to the owner of the filing of a lien upon the . Upon preparation of such notice, the fire code official shall present same to the city council, and the city council shall forthwith, by resolution, fix a time and place for a public hearing on such notice. The fire code official shall cause a copy of such notice to be served on the owner of the property not less than ten (10) days prior to the time fixed for such hearing. Mailing a copy of such notice to the owner of the property at the address listed in the most recent property ownership records provided to the city by the County Assessor as of the date the fire code official causes notice to be sent by certified mail and shall comprise proper service. Service shall be deemed complete at the time of deposit in the United States mail. At the public hearing as

scheduled above, the city council will hear all noticed or affected property owners who would be obligated to pay the abatement and related costs incurred by the city. The city council shall confirm the appropriateness of persons to be held responsible for the noticed abatement charges and report to the fire code official its final determinations of liability concerning the affected parties. Charges confirmed by the city council and not paid within five (5) days of the public hearing date will be subject to lien and collection procedures as provided below.

4906.2.9.3 Recording of lien. The fire code official shall record in the Office of the County Recorder of the County of Los Angeles, State of California, a certificate substantially in the following form:

NOTICE OF SPECIAL ASSESSMENT LIEN

Pursuant to authority vested in me by the Glendale Building and Safety Code, 2011, California, I did on the _____ day of _____, _____, cause a condition to be abated or chargeable action to occur on the hereinafter-described real property at the expenses of the owner thereof, in the amount of \$ _____. Said amount has not been paid nor any part thereof, and the City of Glendale does hereby claim a lien upon the hereinafter-described real property in said amount. The same shall be a lien upon the said real property until said sum, with interest thereon from the date of recordation of this lien in the office of the County Recorder of the County of Los Angeles, State of California, and such other charges as may be set by resolution of the city council, has been paid in full. The real property hereinabove mentioned and upon which a lien is claimed is that certain parcel of land lying and being in the City of Glendale, County of Los Angeles, State of California, and particularly described as follows:

Assessor's Parcel Number _____

Dated this _____ day of _____, _____.

/s/ _____

Fire Chief, City of Glendale

4906.2.10 Method of collection. With the confirmation of the report by the city council, the hazard abatement charges contained therein that remain unpaid by the owner of the subject property shall constitute a special assessment against said property as it has received the special benefit of city abatement services. The same shall be a lien against the property described therein until the amount thereof, plus accrued interest, has been paid in full. The amount of such lien shall draw interest thereon at a rate as established by resolution of the city council from and after the date of the recording of said notice of the contents thereof. Such charges shall be collected, along with city administrative and re-inspection fees, at such time as is established by the County Assessor for inclusion on the next property tax roll. The fire code official shall turn over to the County Assessor for inclusion in the next property tax assessment the total sum of unpaid hazard abatement charges consisting of the abatement costs, administrative and re-inspection fees, as set by resolution of the city council. Thereafter, said assessment may be collected at the same time and in the same manner as ordinary municipal taxes are collected and shall be subject to the same penalties and the same procedure of sale as provided for ordinary delinquent municipal taxes. The special assessment shall be on parity and the same priority as general property taxes.

4906.2.11 Other abatement procedures. The provisions of this section shall not in any manner limit or restrict the city from enforcing city ordinances or abating public nuisances in any other manner provided by law.

4906.3 Unusual circumstances. If the fire code official determines that difficult terrain, danger of erosion or other unusual circumstances make strict compliance with the clearance of vegetation provision of this chapter undesirable or impractical, enforcement thereof may be suspended and reasonable alternative measures shall be provided.

SECTION VI-54. Chapter 50 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

CHAPTER 50

CONTROL AND USE OF HAZARDOUS FIRE AREAS

5001 General.

5001.1 Scope. The unrestricted use of grass-, brush- or tree-covered land in hazardous fire areas is a potential menace to life and property from fire and resulting erosion. Safeguards to prevent the occurrence of fires and to provide adequate fire-protection facilities to control the spread of fire that might be caused by recreational, residential, commercial, or industrial activities conducted in hazardous fire areas shall be in accordance with this Chapter 50.

5002 Definitions. [Reserved.]

5003 Permits. The fire code official is authorized to stipulate conditions for permits. Permits shall not be issued when public safety would be at risk, as determined by the fire code official.

5004 Restricted entry. The fire code official shall determine and publicly announce when hazardous fire areas shall be closed to entry and when such areas shall again be opened to entry. Entry on and occupation of hazardous fire areas, except public roadways, inhabited areas or established trails and camp sites which have not been closed during such time when the hazardous fire area is closed on entry, is prohibited.

Exceptions:

1. Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands.
2. Entry, in the course of duty, by peace or police officers, and other duly authorized public officers, members of a fire department and members of the United States Forest Service.

5005 Trespassing on posted property.

5005.1 General. When the fire code official determines that a specific area within a hazardous fire area presents an exceptional and continuing fire danger because of density of natural growth, difficulty of terrain, proximity to structures or accessibility to the public, such areas shall be closed until changed conditions warrant termination of closure. Such areas shall be posted as hereinafter provided.

5005.2 Signs. Approved signs prohibiting entry by unauthorized persons and referring to Chapter 50 shall be placed on every closed area.

5005.3 Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception: Owners and occupiers of private or public property within closed and posted areas and their guests or invitees, and local, state and federal public officers and their authorized agents acting in the course of duty.

5006 Smoking. Lighting, igniting or otherwise setting fire to or smoking tobacco, cigarettes, pipes or cigars in hazardous fire areas is prohibited.

Exception: Places of habitation or within the boundaries of established smoking areas or campsites as designated by the fire code official.

5007 Spark Arresters. Chimneys in conjunction with fireplaces, barbecues, incinerators or heating appliances in which solid or liquid fuel is used, upon buildings, structures or premises located within 200 feet (60960mm) of hazardous fire areas, shall be provided with a spark arrester constructed with heavy wire mesh or other noncombustible material with openings not to exceed ½ inch (12.7mm).

5008 Tracer bullets, tracer charges, rockets and model aircraft. Tracer bullets and tracer charges shall not be possessed, fired or caused to be fired into or across hazardous fire areas. Rockets, model planes, gliders and balloons powered with an engine, propellant or other feature liable to start or cause fire shall not be fired or projected into or across hazardous fire areas.

5009 Explosives and blasting. Explosives shall not be possessed, kept, stored, sold, offered for sale, given away, used, discharged, transported or disposed of within hazardous fire areas except by permit from the fire code official.

5010 Fireworks. Fireworks shall not be used or possessed in hazardous fire areas.

The fire code official is authorized to seize, take, remove or cause to be removed fireworks.

5011 Apiaries. Lighted and smoldering material shall not be used in connection with smoking bees in or upon hazardous fire areas except by permit from the fire code official.

5012 Outdoor fires. Outdoor fires shall not be built, ignited or maintained in or upon hazardous fire areas, except by permit from the fire code official.

Exception: Outdoor fires within habited premises or designated campsite where such fires are built in permanent barbecue, portable barbecue, outdoor fire place, incinerator or grill and are a minimum of 30 feet (9144 mm) from grass-, brush-, or tree covered area.

Permits shall incorporate such terms and conditions that will reasonably safeguard public safety and property. Outdoor fires shall not be built, ignited, or maintained in or upon hazardous fire areas under the following conditions:

1. When high winds are blowing;
2. When a person age 17 or older is not present at all times to watch and tend such fire;
- or
3. When public announcement is made that open burning is prohibited.

Permanent barbecues, portable barbecues, outdoor fireplaces, or grills shall not be used for the disposal of rubbish, trash or combustible waste material.

5013 Incinerators, firepits, and fireplaces. Incinerators, firepits, outdoor fireplaces, permanent barbecues and grills shall not be built, installed or maintained in hazardous fire areas without prior approval of the fire code official. Incinerators, outdoor fireplaces, permanent barbecues and grills shall be maintained in good repair and in safe condition at all times. Openings in such appliances shall be provided with an approved spark arrester, screen, or door.

Exception: When approved, unprotected openings in barbecues and grills necessary for proper functioning.

5014 Dumping. Garbage, cans, bottles, papers, ash, refuse, trash, rubbish or combustible waste material shall not be placed, deposited or dumped in or upon hazardous fire areas or in, upon or along trails roadways or highways in hazardous fire areas.

Exception: Approved public and private dumping areas.

5015 Disposal of ashes. Ashes and coals shall not be placed, deposited or dumped in or upon hazardous fire areas.

Exceptions:

1. In the hearth or an established fire pit, camp stove or fireplace.
2. In a noncombustible container with a tight fitting lid, which is kept or maintained in a safe location not less than ten (10) feet (3048 mm) from combustible vegetation.
3. Where such ashes or coals are buried and covered with one (1) foot (304.8 mm) of mineral earth not less than 25 feet (7620 mm) from combustible vegetation or structures.

5016 Use of fire roads and firebreaks. Motorcycles, motor scooters and motor vehicles shall not be driven or parked upon, and trespassing is prohibited upon, fire roads or firebreaks beyond the point where travel is restricted by cable, gate or sign, without the permission of the property owner. Vehicles shall not be parked in a manner in which obstructs the entrance to a fire road or firebreak.

Exception: Public officers acting within their scope of duty.

Radio and television aerials, guy wires thereto, and other obstructions shall not be installed or maintained on fire roads or firebreaks unless located 16 feet (4877 mm) or more above such fire road or firebreak.

5017 Use of motorcycles, motor scooters and motor vehicles. Motorcycles, motor scooters and motor vehicles shall not be operated within hazardous fire areas, without a permit by the fire

code official except upon clearly established public or private roads. Permission from the property owner shall be presented when requesting a permit.

5018 Tampering with fire department locks, barricades and signs. Locks, barricades, seals, cables, signs and markers installed within hazardous fire areas, by or under the control of the fire code official, shall not be tampered with, mutilated, destroyed or removed. Gates, doors, barriers and locks installed by or under the control of the fire code official shall not be unlocked.

5019 Liability for damage. The expense of fighting fire that results from a violation of this chapter shall be charged against the person whose violation of this chapter caused the fire. Damages caused by such fires shall constitute a debt of such person and are collectable by the fire code official in the same manner as in the case of an obligation under contract expressed or implied.

5020 Clearance of brush and vegetation growth from electrical transmission lines.

5020.1 General. Clearance of brush and vegetative growth from electrical transmission and distribution lines shall be in accordance with Section 5020.

Exception: Section 5020 does not authorize persons not having legal right of entry on or damage the property of others without consent of the owner.

5020.2 Support clearance. Persons owning, controlling, operating or maintaining electrical transmission or distribution lines shall have an approved program in place that identifies poles or towers with equipment and hardware types that have a history of becoming an ignition source, and provides a combustible free space consisting of a clearing of not less than 10 feet (3048 mm) in each direction from the outer circumference of such pole or tower during such periods of time as designated by the fire code official.

Exception: Lines used exclusively as telephone, telegraph, messenger call, alarm transmission or other lines classed as communication circuits by public utilities.

5020.3 Electrical distribution and transmission line clearances.

5020.3.1 General. Clearances between vegetation and electrical lines shall be in accordance with Section 5020.3.

5020.3.2 Trimming clearance. At the time of trimming, clearances not less than those established by Table 5020-1 shall be maintained during such periods of time as designated by the fire code official. The radial clearances by Table 5020-1 shown below are minimum clearances that should be established, at time of trimming, between the vegetation and the energized conductors and associated live parts.

Exception: The fire code official is authorized to establish minimum clearances different than those specified by Table 5020-1 when evidence sustaining such other clearances is submitted to the fire code official and approved.

**Table 5020 -1 MINIMUM CLEARANCES BETWEEN VEGETATION AND
ELECTRICAL LINES AT TIME OF TRIMMING**

Line Voltage	Minimum Radial Clearance from Conductor (feet) X304.8 mm
2,400 – 72000	4
72,001 – 110,000	6
110,001 – 300,000	10
300,001 – or more	15

5020.3.3 Minimum clearance to be maintained. Clearances not less than those established by Table 5020-2 shall be maintained during such periods of time as designated by the fire code official. The site specific clearances achieved, at time of pruning shall vary based on species growth rates, the utility company specific trim cycle, the potential line sway due to wind, line sway due to electrical loading and ambient temperature, and the tree's location in proximity to the high voltage lines.

Exception: The fire code official is authorized to establish minimum clearances different than those specified by Table 5020-2 when evidence sustaining such other clearances is submitted to the fire code official and approved.

**Table 5020-2 – MINIMUM CLEARANCE BETWEEN VEGETATION AND
ELECTRICAL LINES TO BE MAINTAINED**

Line Voltage	Minimum Clearance (Inches) X 25.4
750 – 35,000	6
35,001 – 60,000	12
60,001 – 115,000	19
115,001 – 230,000	30 ½
230,001 – 500,000	115

5020.3.4 Electrical power line emergencies. During emergencies the utility company shall perform the required work to the extent necessary to clear the hazard. An emergency can include situations such as trees falling into power lines, or trees in violation of Table 5020-2.

5020.4 Correction of condition. The fire code official is authorized to give notice to the owner of the property on which conditions regulated by Section 5020 exist to correct conditions. If the owner fails to correct such condition, the legislative body of the jurisdiction is authorized to cause the same to be done and make the expense of such correction a lien on the property where such conditions exist pursuant to Chapter 4906.

SECTION VI-55. Appendix B Section B105.1 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

B105.1 One-and two-family dwellings. The minimum fire flow requirements for one- and two-family dwellings having a fire-flow calculation area which does not exceed 3,600 square feet (344.5 m²) shall be 1,500 gallons per minute (5677.5 L/min.). Fire-flow and flow duration for dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5 m²) shall not be less than that specified in Table B105.1. For homes in the Wildland Urban Interface Fire

Areas (also known as High Fire Hazard Areas), the fire-flow shall not be less than 2,000 gallons per minute (7570 L/min).

Exception: A reduction in required fire flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system.

SECTION VI-56. Appendix B Section B105.2 of Volume VI of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

B105.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1. For buildings in the Wildland Urban Interface Fire Areas (also known as High Fire Hazard Areas), the fire-flow shall not be less than 2,000 gallons per minute (7570 L/min).

Exception: A reduction in required fire-flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1. The resulting fire-flow shall not be less than 1,500 gallons per minute (5677.5 L/min) for the prescribed duration as specified in Table B105.1.

SECTION VI-57. Appendix C Table C105.1 of Volume VI of the Glendale Building and Safety Code, 2011 is hereby amended to read as follows:

TABLE C105.1--NUMBER AND DISTRIBUTION OF FIRE HYDRANTS

FIRE-FLOW REQUIREMENT (gpm) X 3.785 for L/min.	MINIMUM NO. OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS (feet) ^{1,2} X 304.8 for mm	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT X 304.8 for mm
1,750 or less	1	300	250
2,000-2,250	2	300	225
2,500	3	300	225
3,000	3	300	225
3,500-4,000	4	300	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more ²	200	120

1. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at not less than 1,000-foot (305 m) spacing to provide for transportation hazards.
2. One hydrant for each 1,000 gallons per minute (3785 L/min.) or fraction thereof.

SECTION VI-58. Appendix D, FIRE APPARATUS ACCESS ROADS, Appendix E, HAZARD CATEGORIES, Appendix F, HAZARD RANKING, and Appendix G, CRYOGENIC FLUIDS – WEIGHT AND VOLUME EQUIVALENTS, of the International Fire Code, 2009 edition, published and copyrighted by the International Code Council, are hereby adopted by reference into Volume VI of the Glendale Building and Safety Code, 2011, and by such reference, are incorporated herein as if fully set forth.

VOLUME VII. SECURITY STANDARDS

SECTION VII-1. Volume VII of the Glendale Building and Safety Code, 2011

is hereby adopted to read as follows:

1. Title.

This Code shall be referred to and cited as Volume VII of the Glendale Building and Safety Code, 2011.

2. Purpose.

The purpose of this Code is to provide minimum standards to safeguard property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures within the City of Glendale as required in Section 14051 of the California Penal Code relating to Building Security.

3. Scope.

3.1. New Construction. The provisions of this Code shall apply to new construction and to additions or alterations to existing buildings and structures except as specifically provided by this Code.

3.2. Existing Multiple Family Dwellings. Existing multiple family dwelling units which are converted to privately owned family units (condominiums or cooperatives) shall comply with the provisions of Section 15 (Special Residential Building Provisions) in this Code.

3.3 Exemption. Any building as defined in Volume IA, IB and

Title 19 - California Administrative Code, requiring special type releasing latching, or locking devices, other than described herein, shall be exempt from the provisions hereof relating to locking devices of interior and exterior doors.

4. Definitions.

For the purpose of this Code certain terms are defined as follows:

APPROVED.

Approved shall mean certified as meeting the requirements of this Code by the enforcing authority or its authorized agents, or by other officials designated by law to give approval on a particular matter dealt with by the provisions of this Code with regard to a given material, mode of construction, piece of equipment or device.

AUXILIARY LOCKING DEVICE.

Auxiliary Locking Device shall mean a secondary locking system added to the primary locking system to provide additional security.

BOLT.

Bolt shall mean a metal bar which, when actuated, is projected (or thrown) either horizontally or vertically into a retaining member, such as a strike plate, to prevent a door or window from moving or opening.

BOLT PROJECTION or BOLT THROW.

Bolt projection or bolt throw shall mean the distance from the edge of the door, at the bolt center line to the farthest point on the bolt in the projected position.

BURGLARY RESISTANT GLAZING.

Burglary resistant glazing shall mean those materials as defined in Underwriter's Laboratory (U.L.) Bulletin 972.

COMMERCIAL BUILDING.

Commercial building shall mean a building, or portion thereof used for a purpose other than for a dwelling.

COMPONENT.

Component, as distinguished from a part, shall mean a subassembly which combines with other components to make up a total door or window assembly. For example, the primary components of a door assembly include: door, lock, hinges, jamb/wall, jamb/strike and wall.

CYLINDER.

Cylinder shall mean the subassembly of a lock containing the cylinder core, tumbler mechanism and the keyway. A double cylinder lock is one which has a key-actuated cylinder on both the exterior and interior of the door.

CYLINDER CORE or CYLINDER PLUG.

Cylinder core or cylinder plug shall mean the central part of a cylinder containing the keyway, which is rotated by the key to operate the lock mechanism.

CYLINDER GUARD.

Cylinder guard shall mean a tapered or flush metal ring or plate surrounding the otherwise exposed portion of a cylinder lock to resist cutting, drilling, prying, pulling, or wrenching with common tools.

DEADBOLT.

Deadbolt shall mean a lock bolt which does not have a spring action as opposed to a latch bolt, which does. Deadbolts shall conform to the requirements of locks or latches

prescribed in Volume IA and IB of this Code and shall comply with Grade I ANSI-designation deadbolt locks.

DEAD LATCH or DEADLOCKING LATCH BOLT.

Dead latch or deadlocking latch bolt shall mean a spring actuated latch bolt having a beveled end and incorporating a plunger which, when depressed, automatically locks the projected latch bolt against return by end pressure.

DEMISING WALL.

A common wall that separates one tenant's space from another or from the building's common areas and shall be constructed from the floor to the roof or floor deck above.

DOOR ASSEMBLY.

Door assembly shall mean a unit composed of a group of parts or components which make up a closure for an opening to control passageway through a wall. For the purposes of this Code, a door assembly consists of the following parts: door, hinges, locking device or devices, operation contacts (such as handles, knobs, push plates), miscellaneous hardware and closures, the frame, including the head, threshold and jambs plus the anchorage divides to the surrounding wall and a portion of the surrounding wall extending 36 inches (914mm) from each side of the jambs and 26 inches (660mm) from the head.

DOOR STOP.

Door stop shall mean that projection along the top and sides of a door jamb which checks the door's swinging action.

DOUBLE CYLINDER DEADBOLT.

Double cylinder deadbolt shall mean a deadbolt lock which can be activated only by a key on both the interior and exterior.

DWELLING.

Dwelling shall mean a building or portion thereof designed primarily for residential occupancy, including single family and multiple family dwellings.

ENFORCING AUTHORITY.

Enforcing authority shall mean the agency or person having the responsibility for enforcing the provisions of this volume.

FLUSHBOLT.

Flushbolt shall mean a manual, key, or turn operated metal bolt normally used on inactive door(s) and is attached to the top and bottom of the door and engages the head and threshold of the frame.

FULLY TEMPERED GLASS.

Fully tempered glass shall mean those materials meeting or exceeding ANSI standard Z 97.1 - Safety Glazing.

JAMB.

Jamb shall mean the vertical members of a door frame to which the door is secured.

JAMB/WALL.

Jamb/wall shall mean that component of a door assembly to which a door is attached and secured; the wall and jamb used together are considered a unit.

KEY-IN-KNOB.

Key-in-knob shall mean a lockset having the key cylinder and other lock mechanisms contained in the knob.

LATCH or LATCH BOLT.

Latch or latch bolt shall mean a beveled, spring-actuated bolt which may or may not have a deadlocking device.

LOCK (or lockset).

Lock (or lockset) shall mean a keyed device (complete with cylinder, latch or deadbolt mechanism, and trim such as knobs, levers, thumb turns, escutcheons, or shields and guards, etc.) for securing a door in a closed position against forced entry. For the purposes of this Code, a lock does not include the strike plate.

LOCKING DEVICE.

Locking device shall mean a part of a window assembly which is intended to prevent movement of the movable sash, which may be the sash lock or sash operator.

MULTIPLE FAMILY DWELLING.

Multiple family dwelling shall mean a building or portion thereof designed for occupancy by two or more families living independently of each other, including hotels, motels, apartments, duplexes and townhouses.

PANIC HARDWARE.

Panic hardware shall mean a latching device on a door assembly for use when emergency egress is required due to fire or other threat to life safety. Devices shall be designed so that they will facilitate the safe egress of people in case of an emergency when a pressure not to exceed 15 lbs. (66.72N) is applied to the releasing device in the direction of exit travel. Such releasing devices are bars or panels extending not less than two-thirds of the

width of the door and placed at heights suitable for the service required, not less than 30 inches (762mm) or more than 44 inches (1118mm) above the floor.

PART.

Part, as distinguished from component, shall mean a unit (or subassembly) which combines with other units to make up a component.

PRIMARY LOCKING DEVICE.

Primary locking device shall mean the single locking system on a door or window unit whose primary function is to prevent unauthorized intrusion.

PRIVATE or SINGLE FAMILY DWELLING.

Private or single family dwelling shall mean a building designed exclusively for occupancy by one family.

RAIL.

Rail shall mean the horizontal member of a window or door. A meeting rail is one which mates with a rail of another sash or a framing member of the door or window frame when the sash is in the closed position.

SASH.

Sash shall mean an assembly of stiles, rails, or mullions assembled into a single frame which supports the glazing material. A fixed sash is one which is not intended to be opened. A movable sash is intended to be open.

SILL.

Sill shall mean the lowest horizontal member of a window frame.

SINGLE CYLINDER DEADBOLT.

Single cylinder deadbolt shall mean a deadbolt lock which is activated from the outside by a key and from the inside by a knob, thumb-turn, lever, or similar mechanism.

SOLID CORE DOOR.

Solid core door shall mean a door composed of solid wood or composed of compressed wood equal in strength to solid wood construction.

STILE.

Stile shall mean a vertical framing member of a window or door.

STRIKE.

Strike shall mean a metal plate attached to or mortised into a door or door jamb to receive and to hold a projected latch bolt and/or deadbolt in order to secure the door to the jamb.

SWINGING DOOR.

Swinging door shall mean a door hinged at the stile or at the head and threshold.

U.L. LISTED.

U.L. Listed shall mean tested and listed by Underwriter's Laboratory, Inc.

WINDOW ASSEMBLY.

Window assembly shall mean a unit which includes a window and the anchorage between the window and the wall.

WINDOW FRAME.

Window frame shall mean that part of a window which surrounds and supports the sashes and is attached to the surrounding wall. The members include side jambs (vertical), head jamb (upper, horizontal), sill and mullions.

5. Enforcement Provisions.

The enforcing authority is directed to administer and enforce the provisions of this Code. The enforcing authority shall be the building official as defined in Volume I of this Code.

6. Right of Entry.

The enforcing authority shall have the right, and is hereby authorized and empowered, to enter or go on or about any building as provided by Section 104.2.3 of Volume I of this Code.

7. Violations and Penalties.

It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, move, improve, convert, demolish, equip, use, occupy or maintain any building or structure in the City of Glendale, or cause same to be done, contrary to or in violation of any of the provisions of this Code.

8. Exemptions, Appeals.

Appeals of orders, decisions or determinations made by the building official relative to the applications and interpretations of this Code shall be in accordance with Section 105 of Volume I of this Code.

9. Alternate Materials and Methods of Construction.

The provisions of this Volume are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any such alternate has been approved by the enforcing authority or as provided in Section 5, nor is it the intention of this Volume to exclude any similarly approved sound method or structural design or analysis not specifically provided for in this Volume. Materials, methods of

construction, or structural design limitations provided for in this Volume are to be used unless an exception is granted by the enforcing authority.

Such alternate materials or methods may be approved provided it is found that the proposed design is satisfactory and the material and method of work is, for the purpose intended, at least equivalent to that prescribed in this Code in quality, strength, effectiveness, burglary resistance, durability and safety.

10. Keying Requirements.

Upon occupancy by the owner or proprietor, each single unit in a tract or commercial development, constructed under the same general plan, shall have locks using combinations which are interchange free from locks used in all other separate dwellings, proprietorships or similar distinct occupancies.

A certificate from the lock supplier declaring that all locks supplied to the project are keyed separately shall be acceptable as complying with the above requirements.

11. Frames, Jambs, Strikes, Hinges: Installation and Construction. Installation and construction of frames, jambs, strikes and hinges shall be as follows:

11.1. Door Jambs. Door jambs shall be installed with solid backing in such a manner that no voids exist between the strike side of the jamb and the frame opening for a vertical distance of six (6) inches (153mm) each side of the strike.

11.2. Framing. In wood framing, horizontal blocking shall be placed between studs at door lock height for three (3) stud spaces each side of the door openings. Jambs shall have solid backing against sole plates.

11.3. Door Stops. Door stops on wooden jambs for in-swinging doors shall be of one piece construction with the jamb. Jambs for all doors shall be constructed or protected so as to prevent violation of the strike.

11.4. Strike Plate. The strike plate for deadbolts on all wood frame doors shall be constructed of minimum sixteen (16) U.S. gauge steel, bronze, or brass and secured to the jamb by a minimum of two screws.

11.5. Hinges. Hinges for out-swinging doors shall be equipped with nonremovable hinge pins or a mechanical interlock to preclude removal of the door from the exterior by removing the hinge pins.

12. Windows/Sliding Glass Doors; Requirements.

The following requirements must be met for windows and sliding glass doors:

12.1. Exterior Window; Exemptions. Except as otherwise specified in Section 14 (Special Residential Building Provisions), and Section 15 (Special Commercial Building Provisions) all openable exterior windows and sliding glass doors shall comply with the tests as set forth in Section 16 (Tests).

12.2. Louvered Windows. Louvered windows shall not be used when any portion of the window is less than 12 feet (3658mm) vertically or 6 feet (1829mm) horizontally from an accessible surface or any adjoining roof, balcony, landing, stair tread, platform, or similar structure.

13. Garage-Type Doors.

Rolling overhead, solid overhead, swing or sliding accordion garage-type doors shall conform to the following standards:

13.1. Wood Doors. Wood doors shall have panels a minimum of five-sixteenths (5/16) inch (8mm) in thickness with the locking hardware being attached to the support framing.

13.2. Aluminum Doors. Aluminum doors shall be a minimum thickness of .0215 inches (.546mm) and riveted together a minimum of eighteen (18) inches (458mm) on center along the outside seams. There shall be a full width horizontal beam attached to the main door structure which shall meet the pilot, or pedestrian access, door framing within three (3) inches (76mm) of the strike area of the pilot or pedestrian access door.

13.3. Fiberglass Doors. Fiberglass doors shall have panels a minimum density of six (6) ounces per square foot (1831 gram/m²) from the bottom of the door to a height of seven (7) feet (2134mm). Panels above seven (7) feet (2134mm) and panels in residential structures shall have a density not less than five (5) ounces per square foot (1526 grams/m²).

13.4. Cylinder Locks. Doors utilizing a cylinder lock shall have a minimum five (5) pin tumbler operation with the locking bar or bolt extending into the receiving guide a minimum of one (1) inch (25.4mm).

13.5. Wide Doors, Receiving Points. Doors that exceed sixteen (16) feet (4877mm) in width shall have two lock receiving points; or, if the door does not exceed nineteen (19) feet (5791mm), a single bolt may be used if placed in the center of the door with the locking point located either at the floor or door frame header; or, torsion spring counter balance type hardware may be used.

13.6. Electrically Operated Doors. Except in a residential building, doors secured by electrical operation shall have a keyed-switch to open the door when in a closed position, or by a signal locking device.

13.7. Slide Bolt Assemblies. Doors with slide bolt assemblies shall have frames a minimum of .120 inches (3mm) in thickness, with a minimum bolt diameter of one-half (½) inch (13mm) and protrude at least one and one-half (1-1/2) inches (38mm) into the receiving guide. A bolt diameter of three-eighths (3/8) inch (10mm) may be used in a residential building. The slide bolt shall be attached to the door with non-removable bolts from the outside. Rivets shall not be used to attach slide bolt assemblies.

13.8. Padlock(s). Except in a residential building, padlock(s) used with exterior mounted slide bolt(s) shall have a hardened steel shackle locking both at heel and toe and a minimum five pin tumbler operation with a non-removable key when in an unlocked position. Padlock(s) used with interior mounted slide bolt(s) shall have a hardened steel shackle with a minimum four pin tumbler operation.

A certificate of verification from the contractor/owner declaring that he has advised the occupant of the padlock requirements of this section shall be acceptable as complying with the above requirements.

14. Special Residential Building Provisions.

14.1. Swinging Exterior Doors. Except for vehicular access doors, all exterior swinging doors of any residential building and attached garages, including the door leading from the garage area into the dwelling unit shall be equipped as follows:

1. **Wood Doors:** All wood doors shall be of solid core construction with a minimum thickness of one and three-fourths (1-3/4) inches (45mm), or with panels not less than nine-sixteenths (9/16) inch (15mm) thick.
2. **Locks:** A single or double door shall be equipped with a single cylinder

deadbolt lock. The bolt shall have a minimum projection of one (1) inch (25.4mm) and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least three-fourths (3/4) inch (19mm) into the strike receiving the projected bolt. The cylinder shall have a cylinder guard, a minimum of five pin tumblers, and shall be connected to the inner portion of the lock by connecting screws of at least one fourth (1/4) inch (6.3mm) in diameter. All installation shall be done so that the performance of the locking device will meet the intended anti-burglary requirements. A dual locking mechanism constructed so that both deadbolt and latch can be retracted by a single action of the inside door knob, or lever, may be substituted provided it meets all other specifications for locking devices.

3. Double Doors: The inactive leaf of double doors shall be equipped with metal flush bolts having a minimum embedment of five-eighths (5/8) inch (16mm) into the head and threshold or the door frame.
4. Glazing: Glazing in exterior doors or within forty (40) inches (1016mm) of any locking mechanism shall be of fully tempered glass or rated burglary resistant glazing.
5. Wide Angle Viewer: Except where clear vision panels are installed, all front exterior doors shall be equipped with a wide angle (180⁰) door viewer.

14.2. Address Number and Identifying Data: Address numbers and other identifying data shall be displayed as follows:

1. All residential dwellings shall display an address number in a prominent location on the street side of the residence in such a position that the number is easily

visible to approaching emergency vehicles. The numerals shall be no less than four (4) inches (102mm) in height and shall be of a contrasting color to the background to which they are attached. In addition, any residence which affords vehicular access to the rear through any driveway, alleyway or parking lot shall also display the same numbers on the rear of the building.

2. Multiple Family Dwelling; Illuminated Diagrams and Identification Numbers:

There shall be positioned at each entrance of a multiple family dwelling complex an illuminated diagrammatic representation of the complex which shows the location of the viewer, ~~and~~ the unit designations within the complex, each unit that is a "non smoking" unit (as governed by Chapter 8.52 of the Glendale Municipal Code, 1995, or any successor legislation), the smoking permitted area authorized under Section 8.52.130 of the GMC and the complex's exits, stairwells, elevators, fire alarm annunciator panels, and standpipes. In addition, each individual unit within the complex shall display a prominent identification number, not less than four (4) inches (102mm) in height, which is easily visible to approaching vehicular and/or pedestrian traffic. In addition, any multiple family dwelling which affords vehicular access to the rear through any driveway, alleyway or parking lot shall also display the same numbers on the rear of the building.

14.3. Lighting; Multiple Family Dwellings. Lighting in multiple family dwellings shall be as follows:

1. Aisles, Passageways and Recesses: Aisles, passageways and recesses related to and within the building complex shall be illuminated with an intensity of at least twenty-five hundredths (.25) of a footcandle (2.7 lux) at the ground level during the hours

of darkness. Lighting devices shall be protected by weather and vandalism-resistant covers.

2. **Parking Structures, Parking Lots and Carports:** Parking structures, parking lots and carports shall be provided with a minimum of two (2) footcandles (21.5 lux) of light on the parking surface during the hours of darkness. Lighting devices shall be protected by weather and vandalism-resistant covers.

15. Special Commercial Building Provisions.

15.1. Swinging Exterior Doors; Construction and Glazing. Swinging exterior glass doors, wood or metal doors with glass panels, and solid wood or metal doors of commercial buildings shall be constructed or protected as follows:

15.1.1. Wood Doors Construction: Wood doors shall be of solid core construction with a minimum thickness of one and three-fourths (1-3/4) inches (45mm). Wood panel doors with panels less than one (1) inch (25.4mm) thick shall be covered on the inside with a minimum sixteen (16) U.S. gauge sheet steel, or its equivalent, which is to be attached with screws on minimum six (6) inch (153mm) centers. Hollow steel doors shall be a minimum of sixteen (16) U.S. gauge steel and have sufficient reinforcement to maintain the designed thickness of the door when any locking device is installed; such reinforcement being able to restrict collapsing of the door around any locking device.

15.1.2. Glazing, Iron or Steel Grills: Except when double cylinder deadbolts are utilized, any glazing within 40 inches (1016mm) of any door locking mechanism shall be constructed or protected as follows:

1. Fully tempered glass or rated burglary resistant glazing; or

2. Iron or steel grills of at least one-eighth (1/8) inch (3mm) material with a minimum two (2) inches (52mm) mesh secured on the inside of the glazing may be utilized; or

3. The glazing shall be covered with iron bars of at least one-half (1/2) inch (13mm) round or one inch by one-fourth inch (1" x 1/4") (24.5mm x 7mm) flat steel material, spaced not more than five (5) inches (122mm) apart, secured on the inside of the glazing.

4. Items 2 and 3 above shall not interfere with the operation of opening windows if such windows are required to be openable by the Glendale Building and Safety Code, 2008.

15.2. Swinging Exterior Doors, Equipment and Construction. All swinging exterior wood and steel doors of commercial buildings shall be equipped as follows:

15.2.1. Deadbolts. A single or double door shall be equipped with a double or single cylinder deadbolt. The bolt shall have a minimum projection of one (1) inch (25.4mm) and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least three-fourths (3/4) inch (19mm) into the strike receiving the projected bolt. The cylinder shall have a cylinder guard, a minimum of five pin tumblers, and shall be connected to the inner portion of the lock by connecting screws of at least one-fourth (1/4) inch (7mm) in diameter. The provisions of the preceding paragraph do not apply where (1) panic hardware is required, or (2) an equivalent device is approved by the building official.

15.2.2. Construction and Equipment: Double doors shall be constructed and equipped as follows:

1. The inactive leaf of double door(s) shall be equipped with metal flush bolts having a minimum embedment of five-eighths (5/8) inch (16mm) into the head and threshold of the door frame.

2. Double doors shall have an astragal constructed of steel a minimum of .125 inch (3mm) thick which will cover the opening between the doors. The astragal shall be a minimum of two (2) inches (51mm) wide, and extend a minimum of one (1) inch (25.4mm) beyond the edge of the door to which it is attached. The astragal shall be attached to the outside of the active door by means of welding or with non-removable bolts spaced apart on not more than ten (10) inch (254mm) centers.

15.3. Aluminum Door Equipment. Aluminum frame swinging doors of commercial buildings shall be equipped as follows:

1. The jamb on all aluminum frame swinging doors shall be so constructed or protected to withstand 1600 pounds (7117N) of pressure in both a vertical distance of three (3) inches (76mm) and a horizontal distance of one (1) inch (25.4mm) each side of the strike, so as to prevent violation of the strike.

2. A single or double door shall be equipped with a double cylinder deadbolt with a bolt projection exceeding one (1) inch (25.4mm), or a hook shape or expanding dog bolt that engages the strike sufficiently to prevent spreading. The deadbolt lock shall have a minimum of five pin tumblers and a cylinder guard.

15.4. Panic Hardware. Panic hardware in commercial buildings, whenever otherwise required by this Code or Title 19, California Administrative Code, shall be installed as follows:

1. Panic hardware shall contain a minimum of two (2) locking points on each door; or

2. On single doors, panic hardware may have one locking point which is not to be located at either the top or bottom rails of the door frame. The door shall have an astragal constructed of steel .125 inch (3mm) thick which shall be attached with non-removable bolts to the outside of the door. The astragal shall extend a minimum of one (1) inch (25.4mm) beyond the edge of the door to which it is attached.

3. Double doors containing panic hardware shall have an astragal attached to the doors at their meeting point which will close the opening between them, but not interfere with the operation of either door.

15.5. Sliding Doors. Horizontal sliding doors in commercial buildings shall be equipped with a metal guide track at top and bottom and a cylinder lock and/or padlock with a hardened steel shackle which locks at both heel and toe, and a minimum five pin tumbler operation with non-removable key when in an unlocked position. The bottom track shall be so designed that the door cannot be lifted from the track when the door is in a locked position.

15.6. Office Buildings; Doors to Suites. In office buildings with multiple occupancy, all entrance doors to individual office suites shall meet the construction and locking requirements for exterior doors.

15.7. Accessible Windows. Windows in commercial buildings shall be deemed accessible if less than twelve (12) feet (3658mm) above the ground. Accessible windows having a pane exceeding ninety-six (96) square inches (61935mm²) in an area with the smallest dimension exceeding six (6) inches (153mm) and not visible from a public

thoroughfare (including any street, alleyway or sidewalk supported and maintained through public funds) shall be protected in the following manner.

15.7.1. Fully tempered glass or burglary resistant glazing; or

15.7.2. The following window barriers may be used but shall be secured with non-removable bolts:

1. Inside or outside iron bars of at least one-half ($\frac{1}{2}$) inch (13mm) round or one by one-quarter (1 x $\frac{1}{4}$) inch (25.4mm x 7mm) flat steel material, spaced not more than five (5) inches (127mm) apart and securely fastened; or

2. Inside or outside iron or steel grills of at least one-eighth ($\frac{1}{8}$) inch (3mm) material with not more than a two (2) inch (51mm) mesh and securely fastened.

15.7.3. If a side or rear window is of the type that can be opened, it shall, where applicable, be secured on the inside with either a slide bar, bolt, crossbar, auxiliary locking device, and/or padlock with hardened steel shackle and a minimum four pin tumbler operation.

15.7.4. The protective bars or grills shall not interfere with the operation of opening windows if such windows are required to be openable by this Code.

15.8. Exterior Transoms. All exterior transoms exceeding ninety-six (96) square inches (61935mm^2) on the side and rear of any commercial building or premises used for business purposes shall be protected by one of the following:

15.8.1. Fully tempered glass or rated burglary resistant glazing; or

15.8.2. The following barriers may be used but shall be secured with non-removable bolts:

1. Outside iron bars of at least one-half ($\frac{1}{2}$) inch (13mm) round or one by one-quarter ($1 \times \frac{1}{4}$) inch (25.4mm x 7mm) flat steel material, spaced no more than five (5) inches (127mm) apart and securely fastened; or

2. Outside iron or steel grills of at least one-eighth ($\frac{1}{8}$) inch (3mm) with not more than a two (2) inches (51mm) mesh and securely fastened.

15.8.3. The protective bars or grills shall not interfere with the operation of opening the transoms if such transoms are required to be openable by this Code or Title 19, California Administrative Code.

15.9. Roof Openings. Roof openings of commercial buildings shall be equipped as follows:

15.9.1. All skylights on the roof of any building or premise used for business purposes shall be provided with:

1. Rated burglary resistant glazing; or
2. Iron bars of at least one-half ($\frac{1}{2}$) inch (13mm) round or one by one-fourth ($1 \times \frac{1}{4}$) inch (25.4mm x 7mm) flat steel material under the skylight and securely fastened; or
3. A steel grill of at least one-eighth ($\frac{1}{8}$) inch (3mm) material with a maximum two (2) inches (51mm) mesh under the skylight and securely fastened.

15.9.2. All hatchway openings on the roof of any building or premises used for business purposes shall be secured as follows:

1. If the hatchway is of wooden material, it shall be covered on the inside with at least sixteen (16) U.S. gauge sheet metal, or its equivalent, attached with screws.
2. The hatchway shall be secured from the inside with a slide bar or slide bolts.

3. Outside hinges on all hatchway openings shall be provided with non-removable pins when using pin-type hinges.

15.9.3. All air duct or air vent openings exceeding ninety-six (96) square inches (61935mm²) on the roof or exterior walls of any building or premises used for business purposes shall be secured by covering the same with either of the following:

1. Iron bars of at least one-half (½) inch (13mm) round or one by one-fourth (1 x 1/4) inch (25.4mm x 7mm) flat steel material spaced no more than five (5) inches (127mm) apart and securely fastened; or

2. Iron or steel grills of at least one-eighth (1/8) inch (3mm) material with a maximum two (2) inches (51mm) mesh and securely fastened.

3. If the barrier is on the outside, it shall be secured with bolts which are non-removable from the exterior.

4. The above (1 and 2) must not interfere with venting requirements creating a potentially hazardous condition to health and safety or conflict with the provisions of this Code or Title 19, California Administrative Code.

EXCEPTION: Air duct openings covered by mechanical equipment weighing more than 200 lbs. (890N) or sufficiently anchored with duct access(es) sufficiently secured.

2. A security system approved by the building official.

15.10. Permanent Ladders. Permanently affixed ladders leading to roofs of commercial buildings shall be fully enclosed with sheet metal to a height of ten feet (3048mm). This covering shall be locked against the ladder with a case hardened hasp, secured with non-removable screws or bolts. Hinges on the cover will be provided with non-removable

pins when using pin-type hinges. If a padlock is used, it shall have a hardened steel shackle, locking at both heel and toe, and a minimum five pin tumbler operation with non-removable key when in an unlocked position.

15.11. Exterior Identification, Illumination. The following standards shall apply to lighting, address identification and parking areas:

1. The address number of every commercial building shall be illuminated during the hours of darkness so that it shall be easily visible from the street. The numerals in these numbers shall be no less than six (6) inches (153mm) in height and be of a color contrasting to the background. In addition, any business which affords vehicular access to the rear through any driveway, alleyway or parking lot shall also display the same numbers on the rear of the building.

2. All exterior commercial doors, during the hours of darkness, shall be illuminated with a minimum of one (1) footcandle (10.796 lux) of light. All exterior bulbs shall be protected by weather and vandalism-resistant covers.

3. Parking structures, open parking lots and access thereto, providing more than ten parking spaces and for use by the general public, shall be provided with a maintained minimum of one (1) footcandle (10.769 lux) of light on the parking surface from dusk until the termination of business every operating day.

16. Performance Testing.

16.1. Responsibility of Owner. It shall be the responsibility of the owner or his or designated agent, of a building or structure falling within the provisions of this Volume, to provide the enforcing authority with a written specification performance test report indicating that the materials utilized meet the minimum requirements.

16.2. Proof of Compliance. Whenever there is sufficient evidence of compliance with the provisions of this Volume or evidence that any material or any construction does not conform to the requirements of this Volume, or in order to substantiate claims for alternate materials or methods of construction, the enforcing authority may require tests as proof of compliance to be made at the expense of the owner or his agent by any agency which is approved by the enforcing authority.

16.3. Verification. Specimens shall be representative, and the construction shall be verified by assembly drawings and bill of materials. Two complete sets of manufacturer or fabricator installation instructions and full-size or accurate scale templates for all items and hardware shall be included.

16.4. Testing Methods. The enforcing authority shall establish and adopt testing methods which shall substantially meet the minimum standards in the most recent edition of the California Building Code.

VOLUME VIII.

COMMERCIAL AND INDUSTRIAL PROPERTY MAINTENANCE CODE

SECTION VIII-1. Volume VIII of the Glendale Building and Safety Code, 2011, is hereby adopted to read as follows:

10. PURPOSE.

The Council of the City of Glendale has determined that the economic vitality of the City is directly impacted by the visual character and physical condition of its commercial and industrial neighborhoods. It is the purpose of this code to provide minimum standards for maintenance of properties in these districts, improve community appearance, and to protect the public health, safety and welfare of individuals who live, work, shop and/or operate business within and surrounding these districts.

The goals of this code are to promote an attractive business community that will help serve the economic and social interests of the City, to enhance the value of all commercial and industrial property and promote the overall economic development within the City by preventing commercial and industrial properties from becoming blighted resulting in diminution in the enjoyment, use, and property values of properties in and around the commercial and industrial areas. In adopting this code, it is the Council's intention to set forth maintenance standards for commercial and industrial properties.

20. SCOPE.

The standards set forth in this code shall apply to all lots and parcels in all commercial and industrial zoning districts, as defined in Title 30 of the Glendale Municipal Code, 1995 ("GMC") and all structures located on such real property.

30. DEFINITIONS.

For the purpose of this code, the following words and phrases shall have the following meanings:

1. "COMMERCIAL LANDSCAPING AREAS" shall be as defined by Title 30 of the GMC or as a "condition of approval" of a discretionary action in any commercial, commercial/industrial or industrial zone.
2. "VISUALLY OPAQUE" shall mean material that does not allow the viewing of images through it.

40. AUTHORIZATION.

The building official or his or her designee(s) is authorized and directed to enforce the provisions of this code. For such purposes the building official shall have the powers of a law enforcement officer. The building official shall have the power to render interpretations of this code and to adopt and enforce rules and supplemental regulations in order to clarify the application of its provisions.

50. MAINTENANCE OF PROPERTY, GENERALLY.

All property, buildings and structures or portions thereof shall be maintained in clean, and neat condition, in good repair and free of graffiti.

It is unlawful and deemed a public nuisance for any person owning, leasing, occupying or managing any commercial, commercial/industrial or industrial zoned property to maintain property contrary to this code.

60. SUBSTANDARD PROPERTY.

Any building, structure or portion thereof which is determined to be an unsafe building in accordance with Chapter 1 Division II, Section 116, Volume IA, Glendale

Building and Safety Code, 2011; or any building or portion thereof, or the premises on which the same is located, in which there exists any of the following listed conditions shall be deemed and hereby is declared to be a substandard building and a violation of this code:

1. Any building, structure or portion thereof that is dilapidated, dangerous, abandoned, partially destroyed, or unsafe as defined in the Glendale Building and Safety Code, 2011, resulting from decay, damage, faulty construction or arrangement, fire, wind, earthquake, flood old age or neglect, inadequate exits, human or mechanical damage, or improper occupancy;
2. Any building, structure or portions thereof on which the condition of the paint has become so deteriorated as to permit decay, excessive checking, cracking, peeling, chalking, dry rot, warping, or termite infestation;
3. Any building, structure, wall or fence on which graffiti has been placed which is visible from a public street;
4. Any premises, building or portions thereof that are unsanitary. Unsanitary conditions shall include, but not be limited to, infestation of insects, vermin or rodents, rubbish, trash or debris maintained in any doorway or vestibule, lack of adequate garbage and rubbish storage and removal facilities, and/or lack of or improper connection to required sewage disposal system;
5. All electrical service to any electrical wiring devices, appliance, or equipment which is found to be dangerous to life or property because they are defective or improperly installed or used;

6. Plumbing which was installed in violation of GMC requirements in effect at the time of installation or which has not been maintained in a sanitary and safe operating condition;

7.a. All mechanical systems, materials and appurtenances, both existing and new equipment which were installed in violation of the code edition under which installed and/or not maintained in proper operating condition in accordance with the original design and in a safe and hazard free condition.

b. Screening devices used to obstruct the view of such devices which are not maintained in a clean and neat condition;

c. Any equipment and/or screening device or part thereof that is defective, broken, damaged, or weathered;

8. Any building or portions thereof which has faulty weather protection which shall include, but not be limited to, deteriorated or ineffective waterproofing of exterior walls, roofs, foundations or floors, parapets, including broken windows or doors, defective or lack of weather protection for exterior wall coverings, including lack of paint, or weathering due to lack of paint or other protective covering, or broken, rotted, split, or buckled exterior wall coverings or roof coverings and damaged or non-functioning drainage structures;

9. Any building, premises or portions thereof, device, apparatus, equipment, combustible waste or vegetation which is in such a condition as to cause a fire or explosion or provide a ready fuel to augment the spread and intensity of fire or explosion arising from any cause; or

10. Except as provided in Title 30 of the GMC, the accumulation of weeds, vegetation, junk, abandoned or inoperable motor vehicles, dead organic matter, debris, garbage, offal, rat harborages, stagnant water, combustible materials or similar materials on a premises or property;

11. Inadequate or inoperative night and security lighting on a premises or property.

70. DECLARATION OF SUBSTANDARD PROPERTY.

Whenever the building official or his or her designee(s) finds that a substandard condition(s) exist on any property covered by this code, he or she shall declare the building, structure, and/or premises as substandard and require the owner to complete repairs, removal or clearing of such condition(s) within the time set forth in a notification to the property owner of the substandard conditions. All notices and orders to the property owner shall be issued and recorded pursuant to Chapter 11, Volume V, Glendale Building and Safety Code, 2011.

80. VACANT OR UNOCCUPIED BUILDINGS OR STRUCTURES.

Vacant or unoccupied buildings or structures, and the property on which they are constructed, shall be continuously maintained to the standards set forth in this code.

90. PREMISES, GENERALLY.

Premises of commercial, commercial/industrial and industrial zoned properties shall be maintained free of dirt, litter and debris.

Entryways, porticos, alcoves and vestibules shall be maintained free of dirt, litter and debris.

Windows and window displays shall be clean. Temporary window signs and display materials as permitted by Title 30 of the GMC which have become faded, torn or in disrepair are prohibited.

Awnings must be in good repair. Awnings which are faded or torn or on which lettering is becoming detached, faded or in poor repair are prohibited.

A violation of section 90 shall be deemed an infraction punishable as provided in section 1.20.010(B) of the GMC.

100. CONSTRUCTION SITES.

Work must proceed in a timely manner pursuant to Appendix Section 105.5, Volume IA, Glendale Building and Safety Code, 2011.

The accumulation of dirt, litter, debris, and equipment in or on the adjoining street, and/or sidewalk during construction shall be prohibited, unless otherwise permitted pursuant to a City of Glendale permit.

110. SIGNS.

All signs and sign structures erected or placed on properties within the Commercial and Manufacturing Zones shall be maintained in a good and safe structural condition, shall be painted on all exterior parts at least as often as required to prevent fading, chipping, peeling and rusting, and shall be maintained in good condition and appearance as specified in Section 15.08.260 of the GMC.

A violation of section 110 shall be deemed an infraction punishable as provided in section 1.20.010(B) of the GMC.

120. LANDSCAPING AND IRRIGATION.

All planting material and planting beds shall be permanently maintained in a clean, orderly and healthy manner at all times, pursuant to requirements set forth in Title 30 of the GMC. Any landscaping that is not in a healthy or living state shall be replaced. If a landscape plan is part of any City approval, the replacement of such planting material shall be in accordance with the approved landscaping plan. Proposals to modify an approved landscaping plan, which has been in effect for more than two years, may be reviewed and approved by the City's Permit Services Administrator, without the necessity of returning to the Design Review Board or other permitting authority. For those commercial or industrial properties within a redevelopment project area, any of the modifications under the conditions set forth above, may be reviewed and approved by the Director of Development Services.

No landscaping shall be permitted in areas where such landscaping in any way endangers the health, or public safety by creating a traffic hazard, by obstructing vision, or which is detrimental or harmful to the use of surrounding properties.

All irrigation systems shall be maintained in good repair and working condition. Said systems shall be adjusted so as not to spray across or into any sidewalk, driveway, and/or street.

Violation of section 120 shall be deemed an infraction punishable as provided in section 1.20.010(B) of the GMC.

130. PARKWAYS AND PUBLIC RIGHTS-OF-WAY.

All sidewalks and parkways located adjacent to and adjoining commercial or industrial properties shall be maintained free of junk, trash, debris, litter, painted or inked survey marks (after the work is completed or work in connection therewith), appliances,

furniture, overgrown and unpruned privately owned trees and shrubs, weeds and grass in excess of six (6) inches in height, by the owner or the responsible party in control of such property. Landscaping in parkways shall be permanently maintained in a clean, orderly and healthy manner at all times, pursuant to requirements set forth in Chapter 8.32 of the GMC.

140. PARKING SPACES, LOTS AND STRUCTURES.

All parking lots and structures and their surfaces shall be maintained in a clean, and neat condition and in good repair free of junk, trash, debris, litter, weeds, appliances, furniture, and abandoned or inoperable motor vehicles. All drainage structures shall be maintained and operable and free of standing water. All parking stalls shall be clearly identified with paint or other approved striping materials on the surface of the parking area. All parking lot improvements, including the striping of stalls, appropriate signing and lighting, shall be permanently maintained pursuant to Chapter 30.124 of the GMC.

The following conditions or activities are prohibited:

1. The repair or servicing of any type of vehicles in any parking lot or structure, except as expressly permitted by the GMC;
2. The use of required parking spaces during regular business hours, for storage of commercial or other vehicles, including but not limited to, busses, trailers, recreational vehicles, boats and motor homes, except as otherwise expressly permitted by the GMC, or as incident to the use permitted on the site;
3. Vehicles of any type, parked or stored for sale on any parking lot or vacant parcel except in conjunction with a bona fide vehicle sales agency.

A violation of section 140 shall be deemed an infraction punishable as provided in section 1.20.010(B) of the GMC.

150. LOADING AREAS.

All loading areas must be maintained free and clear of junk, trash, debris, appliances, furniture or any other items. Loading areas shall be maintained in a clean and neat condition, free of any refuse that might attract or harbor rodents, vermin and/or insects.

160. OUTSIDE STORAGE AREAS.

Except as provided in Title 30 of the GMC, there shall be no outside storage of tools, equipment, supplies, materials or merchandise at any time in any commercial or commercial/industrial zoning district. Temporary sheds, tents, awnings and the like are prohibited.

170. REFUSE CONTAINERS AND STORAGE AREAS.

Refuse storage containers and enclosures shall be maintained in the following manner:

1. All refuse and refuse containers shall be stored within an approved storage area or within an enclosed building;
2. All refuse storage areas shall be maintained in a clean and neat manner and refuse shall not project above the height of said enclosure; and
3. All refuse storage areas shall be readily accessible to the users they serve as well as for collection operations.

4. All refuse containers shall be maintained so as to be free of graffiti. All refuse containers shall be securely covered, maintained in good repair, with no jagged or torn metal, and sealed so as not to leak liquid waste.

180. UNIMPROVED PROPERTY.

Unimproved real property in any commercial, commercial/industrial or industrial zoning district shall be maintained in such a manner so as to not be a detriment to other nearby properties and not adversely affect the public's health, safety and welfare.

Unimproved property shall be maintained in a clean and neat manner free of junk, trash, debris, litter, abandoned or inoperable vehicles, stagnant water, abandoned excavations, appliances and furniture, vegetation that is not in a healthy or living state and overgrown vegetation. Living vegetation shall be maintained so as not to exceed an overall height of six (6) inches except for trees and shrubs that are exempt from this requirement. Vehicles of any type shall not be parked or stored for sale on any parking lot or vacant or unimproved parcel except in conjunction with a bona fide vehicle sales agency.

190. ALTERNATIVE ACTIONS AVAILABLE.

Nothing in this code shall be deemed to prevent the City from beginning a civil, criminal and/or administrative proceeding to abate the public nuisance or from pursuing the above remedies individually or collectively or pursuing any other means available to the City under the provisions of applicable ordinances or State law or as alternatives to or in conjunction with the proceedings herein set forth.

200. VIOLATIONS.

Unless otherwise stated, the owner or other entity having charge or control of any structure or real property located in a commercial or industrial zoning district who

**maintains such structure or real property in violation of the provisions of this article is
guilty of a misdemeanor.**

VOLUME IX. GREEN BUILDING STANDARDS

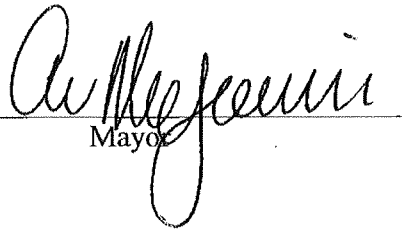
SECTION IX-1. Volume IX of the Glendale Building and Safety Code, 2011,
shall be referred to as the Green Building Standards.

Passed by four-fifths (4/5^{ths}) vote of the Council of the City of Glendale on the
9th day of November, 2010.

ATTEST:


City Clerk

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS.
CITY OF GLENDALE)


Mayor

APPROVED AS TO FORM


General Counsel - Public Works

Date: 11-3-10

I, ARDASHES KASSAKHIAN, City Clerk of the City of Glendale, certify that
the foregoing Ordinance No. 5714 was passed by a four-fifths (4/5^{ths}) vote of the
Council of the City of Glendale, California, at a regular meeting held on the 9th
day of November, 2010, and that the same was passed by the following vote:

Ayes: Drayman, Friedman, Quintero, Weaver, Najarian

Noes: None

Abstain: None

Absent: None


City Clerk

GLENDALE BUILDING AND SAFETY CODE, 2011
(Analysis of amendments to the California Code of Regulation)

Introduction

The Glendale Building and Safety Code is comprised of nine (9) distinct volumes as follows:

Volume IA:	Building Standards (For Commercial and Multi-Family Residential)
Volume IB:	Residential Standards (For One-and-Two Family Dwellings and Townhouses)
Volume II:	Plumbing Standards
Volume III:	Mechanical Standards
Volume IV:	Electrical Standards
Volume V:	Housing Standards
Volume VI:	Fire Standards
Volume VII:	Security Standards
Volume VIII:	Commercial and Industrial Property Maintenance Standards
Volume IX:	Green Building Standards

The regulatory requirements contained within the first six (6) volumes and Volume IX contained within the California Code of Regulations (CCR), specifically, portions of Titles 19, 24, and 25. The California Building Standards Commission (CBSC) adopted such requirements into the California Building Code, California Residential Code, California Plumbing Code, California Mechanical Code, California Electrical Code, California Fire Code, and California Green Building Standards Code. Adoption and enforcement of the Uniform Housing Code is mandated through the State Housing Law (Health and Safety Code, Division 13, Part 1.5, Section 17960). The 1997 Edition of the Uniform Housing Code was adopted by the California Department of Housing and Community Development as provided for in CCR, Title 25, Division 1, Chapter 1, Subchapter 1, Article 5, Section 32.

Local adoption of such codes is mandated on January 1, 2011. Prior to such adoption, jurisdictional bodies may amend said codes if such amendments are justified on the basis of a local climatic, local geologic or local topographic condition which makes such amendment(s) necessary.

The following summary compares the proposed amendments for the 2011 Glendale Building and Safety Code with the 2008 Glendale Building and Safety Code, and discusses the reason and justification for each such amendment. Each amendment is identified by the section number used in the proposed ordinance. Many of the proposed amendments have been renumbered to match the revised format of the International Codes upon which several of the California codes are based.

Volume IA
Building Standards

Section IA - 2.

Chapter 1 Division II, Section 101.2 Scope.

This amendment is similar to the 2008 Glendale Building and Safety Code.

This amendment refers to administrative procedures to be followed, as the State adopted the International Residential Code.

(Justification: Administrative - See justification A in the attached matrix)

Section 1A – 3.

Chapter 1 Division II, Section 104.10.1 Fire code official concurrence.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code-

This amendment provides administrative clarification regarding the need for concurrence by the Fire code official on appeals/slight code modifications which involve fire/life safety issues.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 4.

Chapter 1 Division II, Section 104.11.5 Fire code official concurrence.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment provides administrative clarification regarding the need for concurrence by the Fire code official on the use of alternate materials or methods of construction which involve fire/life safety issues.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 5.

Chapter 1 Division II, Section 105.1 Required.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code. This amendment maintains a requirement for a permit to stripe parking lots. (Justification: Administrative - see justification A in the attached matrix)

Section IA – 6.

Chapter 1 Division II, Section 105.2 Work exempt from permit.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code.

This amendment clarifies types of work which are exempt from building permit requirements, reducing the maximum height for walls from 6 feet to 18 inches. This amendment also added temporary frames (story poles) to be exempt from permit to match legislation passed by City Council in 2008.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 7.

Chapter 1 Division II, Section 105.3 Application for permit.

This amendment is the same as the 2008 Glendale Building and Safety Code.

This amendment establishes the requirement for a plan review fee to be paid.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 8.

Chapter 1 Division II, Section 105.3.2 Time limitation of application.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment establishes a time limit for plan review to match legislation passed by City Council in 2005. This amendment also establishes an extension of plan check to match legislation passed by City Council in 2009.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 9.

Chapter 1 Division II, Section 105.3.3 Plan review fees.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment provides for the establishment of fees by resolution of the City Council.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 10.

Chapter 1 Division II, Section 105.5 Expiration.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment provides a time limit for plan review to match legislation passed by city Council in 2005 and establishes the procedures for renewing action on an expired application.

(Justification: Administrative - See justification A in the attached matrix)

Section IA- 11.

Chapter 1 Division II, Section 105.8 Responsibility of permittee.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code. This amendment clearly establishes the permit applicant's responsibilities in express fashion, rather than reliance upon implicit understanding of same.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 12.

Chapter 1 Division II, Section 109.4 Work commencing before permit issuance.

This amendment is essentially the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 108.4 to match the new code format. This amendment establishes the fees to be collected when a permit is issued for which the work has commenced before obtaining the permit.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 13.

Chapter 1 Division II, Section 110.3.5 Lath and gypsum board inspection.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 109.3.5 to match the new code format. This amendment refers to administrative procedures to be followed when inspecting lath and gypsum board.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 14.

Chapter 1 Division II, Section 110.3.9.1 Structural observation.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 109.3.9.1 to match the new code format. This amendment refers to administrative procedures to be followed when structural observation is required.

(Justification: Administrative - see justification A in the attached matrix)

Section IA – 15.

Chapter 1 Division II, Section 113 BOARD OF APPEALS.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 112 to match the new code format.

This amendment establishes the joint Building and Fire Board of Appeals and the administrative procedures for the board.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 16.

Chapter 1 Division II, Section 114.1 Unlawful acts.

This amendment is similar to a previous amendment in the 1999 and 2002 Glendale Building and Safety Code.

This amendment re-introduces administrative procedures when working with unsafe buildings and structures.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 17.

Chapter 1 Division II, Section 114.4 Violation penalties.

This amendment is similar to a previous amendment in the 1999 and 2002 Glendale Building and Safety Code.

This amendment re-introduces administrative procedures when working with unsafe buildings and structures. This amendment is necessary to clarify administrative enforcement procedures, and establishes penalties

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 18.

Chapter 1 Division II, Section 115.1 Authority.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 114.1 to match the new code format. This amendment refers to administrative procedures to allow the building official to enforce local regulations.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 19.

Chapter 1 Division II, Section 115.3 Unlawful continuance.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 114.3 to match the new code format. This amendment identifies violations as misdemeanors.

(Justification: Administrative - see justification A in the attached matrix)

Section IA – 20.

Appendix Chapter 1, Section 116.6 Non-compliance.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 115.6 to match the new code format. This amendment refers to administrative procedures to be followed when working with unsafe buildings or structures.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 21.

Chapter 1 Division II, Section 116.7 Vacated Buildings.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 115.7 to match the new code format. This amendment refers to administrative procedures to be followed when working with unsafe buildings or structures.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 22.

Chapter 1 Division II, Section 117 REFUSE AND RECYCLING STORAGE.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 116 to match the new Code format. This amendment establishes administrative regulations regarding the construction of refuse storage rooms/areas. These administrative regulations are necessary to ensure the efficient operation of the City's Integrated Waste Management program. These provisions contribute to state mandated waste diversion objectives.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 23.

Chapter 1 Division II, Section 118 CONSTRUCTION TOILET FACILITIES.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 117 to match the new code format.

This amendment requires construction sites to be equipped with available toilet facilities.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 24.

Chapter 1 Division II, Section 119 ON SITE CONSTRUCTION TRASH AND DEBRIS CONTROL.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 118 to match the new code format.

This amendment requires trash and debris control for facilities for construction sites,

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 25.

Chapter 1 Division II, Section 120 DISASTER REPAIR AND RECONSTRUCTION.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 119 to match the new code format. This amendment establishes administrative procedures related to the repair and reconstruction of structures affected by a disaster.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 26.

Chapter 1 Division II, Section 121 SANDBLASTING.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 120 to match the new code format.

This amendment establishes administrative regulations regarding sandblasting activities to protect adjoining property from potential damage due to over spray.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 27.

403.3 Automatic sprinkler system.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code, renumbered from Section 403.2 to match the new code format. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IA – 28.

503.2 Construction on contiguous lots under same ownership or occupancy.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes construction requirements for structures constructed on two or more contiguous lots, when such lots are held under common ownership or occupancy.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 29.

504.2 Automatic sprinkler system increase.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment limits the conditions under which increases in height or number of stories are allowed when fire sprinkler systems are installed, similar to what the current code requires. This amendment is necessary as a result of the high seismicity of our local area, which may render a sprinkler system inoperable, in combination with the common occurrence of hot dry winds (Santa Ana winds).

(Justification: Geologic, Climatic and Topographic – See justification B, C and D in the attached matrix)

Section IA – 30.

506.3 Automatic sprinkler system increase.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment limits the conditions under which increases in building area are allowed when fire sprinkler systems are installed, similar to what the current code requires. This amendment is necessary as a result of the high seismicity of our local area, which may render a sprinkler system inoperable, in combination with the common occurrence of hot dry winds (Santa Ana winds).

(Justification: Geologic, Climatic and Topographic – See justification B, C and D in the attached matrix)

Section IA – 31.

903.2 Where Required.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section IA – 32.

903.3.1.2 NFPA 13R sprinkler systems.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

This amendment deletes Section 903.3.1.2 restricting the use of NFPA 13R systems.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IA – 33.

903.3.5.2 Secondary water supply.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IA – 34.

906.8 Cabinets.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IA – 35.

906.9.1 Extinguishers weighing 40 pounds or less.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Administrative – See justification A in the attached matrix)

Section IA – 36.

907.6.5 Monitoring.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IA – 37.

907.7.2 Record of completion.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Administrative – See justification A in the attached matrix)

Section IA – 38.

911.1.4 Layout approval.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IA – 39.

911.1.5 Required Features.

This amendment makes the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code consistent with the Fire Safety Standards in Volume VI of the 2011 Glendale Building and Safety Code. The [F] indicates the language is copied from the Fire Code for consistency.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IA – 40.

TABLE 1004.1.1 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment defines an occupant load factor for billiard/pool tables and garment manufacturing.

(Justification: Administrative – See justification A in the attached matrix)

Section IA – 41.

TABLE 1015.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment defines a second exit threshold for garment manufacturing.

(Justification: Administrative– See justification A in the attached matrix)

Section IA – 42.

1505.1 General.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment prohibits the use of wood roof covering material, and requires other roof coverings to have a Class A rating, or be made of materials meeting the requirements of a Class B roofing assembly.

(Justification: Topographic & Climatic– See justification C and D in the attached matrix)

Section IA – 43.

TABLE 1505.1.

MINIMUM ROOF COVERING CLASSIFICATION FOR TYPES OF CONSTRUCTION

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment eliminates the acceptance of Class C roofing materials.

(Justification: Topographic & Climatic– See justification C and D in the attached matrix)

Section IA – 44.

1505.1.3 Roof coverings within all other areas.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment prohibits the use of wood roof covering material, and requires other roof coverings to have a Class A rating, or be made of materials meeting the requirements of a Class B roofing assembly in non-high fire hazard areas.

(Justification: Topographic & Climatic– See justification C and D in the attached matrix)

Section IA – 45.

Table 1507.3.7 CLAY AND CONCRETE TILE ATTACHMENT.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment changes the minimum number of fasteners for tile roofing material from one fastener to two fasteners per tile even on relatively flat roofs, and increases the minimum side lap requirement for roofing felt. This amendment specifies nailing edge distances to ensure a sturdy connection. This amendment also establishes corrosion resistance characteristics for nails to mitigate water intrusion and water-accelerated corrosion of fastening material which results from heavy rains which occur throughout the local region.

(Justification: Geologic and Climatic – see justification B and C in the attached matrix)

Section IA – 46.

1510.7 Roof sheathing.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment requires existing buildings to be provided with a plywood diaphragm when roofing material is stripped from the structure, if such buildings do not have such a diaphragm,

(Justification: Geologic and Topographic– see justification B and D in the attached matrix)

Section IA – 47.

1512 Solar photovoltaic panels/modules.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code to address the design and construction of this new technology not addressed in the base codes.

This amendment incorporates the State Fire Marshalls for installation of solar photovoltaic power systems along with local amendments. This amendment is necessary to provide adequate protection from personal injury and property protection due to specific local conditions.

(Justification: Administrative, Topographic and Climatic - See justifications A, B and C in the attached matrix)

Section IA – 48.

1613.6.1 Assumption of flexible diaphragm.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 16.14.1.2 to match the new code format.

This amendment addresses errata and revision to the ASCE reference document. It also establishes a story limit for structures of light frame construction with vertical.

(Justification: Geologic, Climatic and Topographic – See justification B, C and D in the attached matrix)

Section IA – 49.

1613.6.7 Minimum distance for building separation.

This amendment is the same as in to the 2008 Glendale Building and Safety Code, renumbered from Section 16.14.1.7 to match the new code format.

This amendment addresses errata and revision to the ASCE reference document. It also establishes a minimum building seismic separation to ensure that a safe seismic separation distance is provided.

(Justification: Geologic, Climatic and Topographic – See justification B, C and D in the attached matrix)

Section IA – 50.

1613.8 Suspended Ceilings.

This section is the same as in the 2008 Glendale Building and Safety Code. This amendment is necessary to address the design of suspended ceilings for seismic loads similar to what is in the current California Building Code. It is through the experience of prior earthquakes, such as the Northridge earthquake that this amendment is proposed so as to minimize the amount of bodily and building damage within the spaces in which this type of ceiling will be installed.

(Justification: Geologic– See justification B in the attached matrix)

Section IA – 51.

1615 MODIFICATIONS TO ASCE 7.

This amendment is the same as in the 2008 Glendale Building and Safety Code renumbered to match the new code format.

This amendment addresses several errata and revisions to the ASCE reference document. It also establishes a story limit for structures of light frame construction with vertical irregularities and establishes a minimum building seismic separation to ensure that a safe seismic separation distance is provided.

(Justification: Geologic, Climatic and Topographic – See justification B, C and D in the attached matrix)

Section IA – 52.

1616 SEISMIC DESIGN PROVISIONS FOR HILLSIDE BUILDINGS.

This amendment is essentially the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 1615 to match the new code format. This amendment establishes design parameters to mitigate the increased seismic forces which are imparted upon structures located on sloping surfaces.

(Justification: Geologic and Topographic– See justification B and D in the attached matrix)

Section IA – 53.

1704.1 General.

This amendment is the same as in the 2008 Glendale Building and Safety Code, deleting an exception for single family dwellings regarding special inspections.

(Justification: Geologic and Topographic – See justification B and D in the attached matrix)

Section IA – 54.

1704.4 Concrete construction.

This amendment is the same as in the 2008 Glendale Building and Safety Code, requiring special inspection for concrete with a compressive strength over 2500 psi as our code currently requires.

(Justification: Geologic and Topographic – See justification B and D in the attached matrix)

Section IA – 55.

1704.8 Driven deep foundations.

This amendment is similar to the 2008 Glendale Building and Safety Code, requiring special inspection for grade beams connecting to piles. This section was renumbered and broken into two sections, section 1704.8 and 1704.9. This amendment is necessary to clarify that grade beams that connect to piles or caissons are not exempt from special inspection requirements, even though they are part of a foundation system.

(Justification: Geologic – See justification B in the attached matrix)

Section IA - 56.

1704.9 Cast-in-place deep foundations.

This amendment is similar to the 2008 Glendale Building and Safety Code, requiring special inspection for grade beams connecting to piles. This section was renumbered and broken into two sections, section 1704.8 and 1704.9. This amendment is necessary to clarify that grade beams that connect to piles or caissons are not exempt from special inspection requirements, even though they are part of a foundation system.

(Justification: Geologic – See justification B in the attached matrix)

Section IA – 57.

1705.3 Seismic resistance.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code as a result of a new section added to the code.

This amendment modifies an exception to require special inspections to detached one-or-two family dwellings located in Seismic Design Category D, E or F.

(Justification: Geologic – See justification B in the attached matrix)

Section IA – 58.

1710.1 General.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 1709.1 to match the new code format.

This amendment provides administrative guidelines to establish consistent structural observation procedures, necessary to provide proper structural observation of critical design features in buildings to ensure that they are constructed in accordance with the designer's parameters, to withstand the seismic forces which may be imparted on buildings within this area.

(Justification: Administrative and Geologic– See justification A and B in the attached matrix)

Section IA – 59.

1710.2 Structural observation for seismic resistance.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 1709.2 to match the new code.

This amendment clarifies an exception regarding structural observation for single family dwellings.

(Justification: Geologic – See justification B in the attached matrix)

Section IA – 60.

1805.4.3 Drainage discharge.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from 1807.4.3 to match the new code format. This amendment requires site drainage devices, for all concentrated water, to be installed to the satisfaction of the building official and city engineer. This amendment will reduce damage and help prevent injury by requiring that drainage systems be installed to minimum standards established by the building official and the city engineer, thereby providing better control of the effect of concentrated drainage on property.

(Justification: Climatic and Topographic – see justification C and D in the attached matrix)

Section IA – 61.

1807.1.4 Permanent wood foundation systems.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 1805.4.6 and split into two code sections. This amendment prohibits the use of spread wood footings. Additionally, the local region is in an area with a very temperate climate, which is not subject to frequent ground freezing. As a combined result of constant moisture and soil which does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms, wood footings experience relatively rapid decay. This amendment will mitigate the detrimental affect of such organisms by prohibiting the use of wood foundations.
(Justification: Climatic - see justification C in the attached matrix)

Section IA – 62.

1807.1.6 Prescriptive design of concrete and masonry foundation walls.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 1805.5. This amendment requires foundation walls be designed by licensed professionals and deletes references to prescriptive tables which allow plain concrete or excessively slender walls. This amendment is necessary as plain concrete performs poorly in withstanding the cyclic forces resulting from seismic events. Similarly, excessively slender walls also perform poorly during seismic events.
(Justification: Geologic - see justification B in the attached matrix)

Section IA – 63.

1809.3 Stepped Footing.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code that was previously not addressed in the 2008 Glendale Building and Safety Code.

This amendment clarifies additional reinforcing for stepped footing assigned to higher Seismic Design Category. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under reinforced footings located on sloped surfaces. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event.
(Justification: Geologic - See justification B in the attached matrix)

Section IA – 64.

1809.7 Prescriptive footing for light-frame construction.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 1805.4.2. This amendment restricts the use of plain concrete in foundations supporting light frame construction. This amendment is necessary to prevent damage to structures from seismic forces as plain concrete performs poorly in the cyclic loading due to earthquakes.
(Justification: Geologic - See justification B in the attached matrix)

Section IA – 65.

TABLE 1809.7 PRESCRIPTIVE FOOTINGS SUPPORTING WALLS OF LIGHT-FRAME CONSTRUCTION.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Table 1805.4.2. This amendment restricts the use of plain concrete in foundations supporting light frame construction. This amendment is necessary to prevent damage to structures from seismic forces as plain concrete performs poorly in the cyclic loading due to earthquakes.
(Justification: Geologic - See justification B in the attached matrix)

Section IA – 66.

1809.12 Timber footings.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 1805.4.5 and split into two code sections. This amendment prohibits the use of timber footings.

(Justification: Climatic - See justification C in the attached matrix)

Section IA – 67.

1810.3.2.4 Timber.

This amendment is similar to the 2008 Glendale Building and Safety Code, renumbered from Section 1805.4.5 and split into two code sections. This amendment prohibits the use of timber footings.

(Justification: Climatic - See justification C in the attached matrix)

Section IA – 68.

1908.1 General.

This amendment is similar to the 2008 Glendale Building and Safety Code to add sections necessary to address deficiencies in ACI 318, as described in adoption sections IA – 69 through IA- 75.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 69.

1908.1.2 ACI 318 Section 21.1.1.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code to address a deficiency in ACI 318.

This amendment gives explicit requirements under which design and detailing need to conform to special structural wall system provision in ACI-318 Section 21.9, which covers both cast-in-place as well as precast. This amendment further gives building officials the tools to enforce minimum life safety building performance under earthquake forces in Seismic Design Category D, E or F.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 70.

1908.1.3 ACI 318 Section 21.4.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code to address a deficiency in ACI 318.

This amendment establishes conformance to special structural wall system design and detailing of wall piers ensures minimum life safety performance in resisting earthquake forces for structures in Seismic Design Category D, E or F. Proposed modification separates wall piers designed for structures assigned to Seismic Design Category C from those assigned to Seismic Design Category D, E or F.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 71.

1908.1.8 ACI 318 Section 22.10.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code to address a deficiency in ACI 318.

This amendment requires minimum reinforcement in continuous footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 72.

1908.1.11 ACI 318 Section 21.6.4.1.

This amendment is the same as in the 2008 Glendale Building and Safety Code to address a deficiency in ACI 318. This amendment was renumbered from Section 1908.1.18. This amendment is necessary to provide increased confinement in the design of concrete columns in moment frames which is critical to the integrity of such columns during a seismic event such as the Northridge Earthquake.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 73.

1908.1.12 ACI 318 Section 21.6.4.

This amendment is the same as in the 2008 Glendale Building and Safety Code to address a deficiency in ACI 318. This amendment was renumbered from Section 1908.1.19. This amendment is necessary to provide increased confinement in the design of concrete columns in moment frames which is critical to the integrity of such columns during a seismic event such as the Northridge Earthquake.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 74.

1908.1.13. ACI 318 Section 21.7.4.

This amendment is the same as in the 2008 Glendale Building and Safety Code to address a deficiency in ACI 318. This amendment was renumbered from Section 1908.1.20. This amendment is necessary to establish a critical provision for the design of concrete shear walls, limiting the use of very highly gravity loaded walls from being included in the seismic load resisting system, since their failure could have a catastrophic effect on the building.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 75.

1908.1.14 ACI 318 Section 21.11.6.

This amendment is the same as in the 2008 Glendale Building and Safety Code to address a deficiency in ACI 318 which will be corrected in ACI 318-08 to require adequate coverage of critical boundary and collector elements when placed in a topping slab. This amendment was renumbered from Section 1908.1.21. This amendment is necessary to ensure the reinforcing remains confined in the topping slab to prevent buckling of such reinforcement which can lead to failure of the structure during a seismic event.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 76.

1909.1 Scope.

This amendment is the same as in the 2008 Glendale Building and Safety Code and restricts the use of plain concrete. This amendment is necessary to ensure the safe design of concrete structures and foundations as plain concrete performs poorly during the cyclic loading resulting from a seismic event.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 77.

2113.1 Definition.

This amendment is the same as in the 2002 Glendale Building and Safety Code. It defines the requirements for a partial repair of an existing masonry chimney. The balance of the original amendment is already incorporated into the 2010 California Building Code.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 78.

2204.1.1 Consumables for welding.

This amendment is new to Volume 1A of the 2008 Glendale Building and Safety Code to address a design deficiency not addressed in the base code.

A number of significant technical modifications have been made since the adoption of AISC 341-05. One such change incorporates AWS D1.8/D1.8M by reference for welding related issues. This change will be included in AISC 341-10 that is to be incorporated by reference into the 2012 Edition of the International Building Code. This proposed amendment is consistent with actions taken by both DSA-SS and OSHPD to incorporate such language in the 2010 Edition of the California Building Code.

(Justification: Administrative - See justification B in the attached matrix)

Section IA – 79.

2205.4 Modification to AISC 341.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment is necessary because it addresses a design deficiency for braced frames recently identified by dynamic testing and already incorporated into structural provisions regulated by OSHPD and DSA/ SS.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 80.

2304.9.1 Fastener Requirements.

This amendment is similar to the 2008 Glendale Building and Safety Code.

This amendment prohibits the use of staples as fasteners to resist or transfer seismic forces and shall not be permitted without being substantiated by cyclic testing.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 81.

2305.4 Quality of nails.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 2305.3.12 to match the new code format.

This amendment establishes quality standards for nails used to fasten wood structural panel sheathing to shear wall framing elements. In particular, the use of nails with clipped heads which are often driven by pneumatic nail guns would be restricted. This amendment is necessary because the federal specifications for nail quality, as referenced in the National Design Standards for Wood Construction, allow machine driven nail manufacturers to establish their own nail head tolerances. Allowable unit shear stresses, which are stipulated by the Code, are based on tests of panels constructed with full-head nails. Therefore, to ensure that shear walls are constructed as intended, full-head nails will also be required. Machine driven nails are available with full-head designs, which would be permitted

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 82.

2305.5 Hold-down connectors.

This amendment is essentially the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 2305.5 to match the new code format. This amendment requires seismic hold-down connectors to be designed based on cyclic load values, or 75 percent of non-cyclic load values. Additionally, steel plate washers are required when connection involves wood framing members. This amendment is necessary because cyclic forces imparted on structures by seismic activity causes more damage than equivalent forces which are applied in a static manner. Steel plate washers will reduce the additional damage which can result when hold-down connectors are fastened to wood framing members. (Justification: Geologic - See justification B in the attached matrix)

Section IA – 83.

2306.2.1 Wood structural panel diaphragms.

This amendment is similar to the 2008 Glendale Building and Safety Code, renumbered from Section 2306.3.1.

This amendment disallows the use of higher allowable (horizontal) diaphragm shear stress based on numerical calculation, and requires the use of unit shear strength values as specified by the Code. This amendment is necessary because unit shear strength values specified in the Code are based on actual cyclic tests, thereby providing a more reliable design strength. Furthermore, review of actual damage caused by recent earthquakes has revealed that diaphragms sheathed with thinner wood structural panels performed poorly, and may have contributed to increased structural damage.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 84.

TABLE 2306.2.1(1) ALLOWABLE SHEAR FOR WOOD STRUCTURAL PANEL DIAPHRAGMS.

This amendment is similar to Volume I of the 2008 Glendale Building and Safety Code renumbered from Table 2306.3.1.

This amendment prohibits the use of staples as fasteners for wood structural panel shear walls or diaphragms and not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing.

(Justification: Geologic See justification B in the attached matrix)

Section IA – 85.

2306.3 Wood structural panel shear walls.

This amendment is the similar to the 2002 and 2008 Glendale Building and Safety Code, renumbered from Section 2306.4.1.

This amendment disallows the use of higher allowable diaphragm shear stress based on numerical calculation, and requires the use of unit shear strength values as specified by the Code. This amendment also limits the minimum thickness of wood structural panel sheathing and establishes minimum nail spacing requirements. This amendment is necessary because unit shear strength values specified in the Code are based on actual cyclic tests, thereby providing a more reliable design strength. Furthermore, review of actual damage caused by recent earthquakes has revealed that diaphragms sheathed with thinner wood structural panels performed poorly, and may have contributed to increased structural damage.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 86.

TABLE 2306.3 ALLOWABLE SHEAR FOR WOOD STRUCTURAL PANEL SHEAR WALLS.

This amendment is similar to the 1999, 2002 and 2008 Glendale Building and Safety Code, renumbered from Table 2306.4.1 to match the new code format and altered to address installation over gypsum board. This amendment is necessary because tabulated unit shear values in the model codes are based on static testing results. Shear walls subjected to actual cyclic loading, resulting from seismic displacement of structural members, resist less force than static tests can predict. Reductions in tabulated unit shear stress capacities will result in shear wall construction that will resist greater seismic forces, similar to those experienced throughout the local region. Additionally, this amendment is necessary to prohibit the installation of panels directly over gypsum board. This amendment is intended to prevent the undesirable performance of nails resulting from the softening of gypsum board due to cyclic earthquake displacements. This amendment also prohibits the use of staples as fasteners for wood structural panel shear walls or diaphragms and not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing.

(Justification: Geologic See justification B in the attached matrix)

Section IA – 87.

2306.4 Lumber sheathed shear walls.

This amendment is similar to the 2008 Glendale Building and Safety Code, renumbered from Section 2306.4.2 to match the new code format. This amendment prohibits the use of lumber sheathed diaphragms and includes Seismic Design category D. This amendment is necessary because the severe lateral ground displacement that is frequently experienced throughout the local region results in very strong lateral forces on buildings. Investigations after the Northridge earthquake revealed that this material performed poorly as a lateral force-resisting element.

(Justification: Geologic- See justification B in the attached matrix)

Section IA – 88.

2306.7 Shear walls sheathed with other materials.

This amendment is the same as in the 2008 Glendale Building and Safety Code, renumbered from Section 2306.4.5 to match the new code format.

This amendment significantly reduces the allowable unit shear stress for shear walls of lath and plaster or gypsum board. This amendment is necessary to restrict allowable design values for gypsum board and plaster to values recommended by a joint investigation by the City of Los Angeles and the Structural Engineers Association of Southern California of damage that resulted from the January 17, 1994 Northridge Earthquake. Due to the lack of ductility in these brittle materials, premature failure may result in increased structural damage and personal injury or loss of life. Reducing the allowable unit shear capacities for these materials will mitigate the increased risk associated with their brittle nature.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 89.

TABLE 2306.7 ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES FOR SHEAR WALLS OF LATH AND PLASTER OR GYPSUM BOARD WOOD FRAMED WALL ASSEMBLIES.

This amendment is similar to the 2002 and 2008 Glendale Building and Safety Code, renumbered from Table 2306.4.5 to match the new code format.

This amendment significantly reduces the allowable unit shear stress for shear walls of lath and plaster or gypsum board. This amendment is necessary to restrict allowable design values for gypsum board and plaster to values recommended by a joint investigation by the City of Los Angeles and the Structural Engineers Association of Southern California of damage that resulted from the January 17, 1994 Northridge Earthquake. Due to the lack of ductility in these brittle materials, premature failure may result in increased structural damage and personal injury or loss of life. Reducing the allowable unit shear capacities for these materials will mitigate the increased risk associated with their brittle nature.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 90.

2308.3.4 Braced wall line support.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment requires interior braced walls (shear walls) to be supported by continuous foundations, thereby ensuring a substantial means of transferring loads to the supporting material. This amendment is necessary because nearly all wood frame structures rely upon interior braced walls (shear walls) to resist substantial portions of lateral forces within a building. A continuous load path, including a continuous foundation element, provides a method of dissipating seismically induced forces back into the supporting material. Reliance upon nonstructural elements, including raised wooden floors and nonstructural slabs does not provide a predictable method of resistance. Raised wood floor diaphragms and perimeter sill bolting, alone, may be inadequate to resist horizontal shear forces imposed by interior braced wall lines.

(Justification: Geologic See justification B in the attached matrix)

Section IA – 91.

2308.12.2 Concrete or masonry.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment limits the use of stone and masonry anchored veneer when using conventional framing designs. This amendment is necessary because the additional weight attributed to the use of heavy veneer substantially increases seismic loads to conventionally braced wall panels. Furthermore, seismically induced loads, in a direction normal to walls, may over stress wood frame bearing walls as a result of the combined loading. Review of damage resulting from the January 17, 1994 Northridge Earthquake revealed significant damage which was contributed to by the increased weight of veneer materials.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 92.

2308.12.4 Braced wall line sheathing.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment eliminates a provision in the Code which would allow excessive spacing between interior braced wall lines in one- and two-story R-3 Occupancies which are not engineered structures, but rather utilize the standard prescriptive design guidelines. This amendment is necessary because the severe lateral ground displacement that is frequently experienced throughout the local region results in very strong lateral forces on buildings. The prescriptive provision, within the conventional light framing portion of the Code, which would allow excessive spacing between braced wall lines must be eliminated to ensure safe structures. Elimination of this section would not preclude construction of structure with large interior spans, but it would require that such structures be designed by a registered engineer or architect, thereby reducing the exposure of occupants to increased risk of injury during earthquakes.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 93.

TABLE 2308.12.4 WALL BRACING IN SEISMIC DESIGN CATEGORY D AND E.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment eliminates the use of particle board, fiber board and diagonal wood sheathing as shear walls for one-story, R-3 Occupancies which are not engineered structures, but rather utilize the standard prescriptive design guidelines. This amendment is necessary because the severe lateral ground displacement that is frequently experienced throughout the local region results in very strong lateral forces on buildings. Investigations after the Northridge earthquake revealed that these materials performed poorly as lateral force-resisting elements. The prescriptive provision, within the conventional light framing portion of the Code, must be eliminated to ensure safe structures. This table is a companion to Section 2308.12.4 and is necessary to be amended to be compatible with the amended section.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 94.

2308.12.5 Attachment of sheathing.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment eliminates a provision which would otherwise allow reduced nailing of floor diaphragm sheathing when wood structural panel floors are glued to joists.

This amendment is necessary because adhesive attachment of wood structural panel sheathing cannot be relied upon after the first seismic motion. Seismic motion is cyclic and generally results in repetitive loading as a result of subsequent fault ruptures (after shocks). Adhesive connections offer no residual strength after bond failure. Mechanical attachment by nails provides a ductile connection which can resist repetitive loading cycles before fasteners fatigue or panels fail. Reduction in nailing at panel edges results in increased flexibility of floors, which can reduce the diaphragm capacity to resist seismic forces as intended.

(Justification: Geologic - See justification B in the attached matrix)

Section IA – 95.

3102.6.2 Membrane less than 20 feet (6096 mm).

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code.

This amendment codifies conditions of approvals for a building code modification to allow membranes less than 20 feet above finish floor. This amendment will help expedite Building and Safety's plan review process.

(Justification: Administrative and Topographic - See justification A and D in the attached matrix)

Section IA – 96.

3109.4.4.3 Enclosure; required characteristic.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code. This amendment modifies the requirements for swimming pool enclosures in a hillside location
(Justification: Topographic see justification D in the attached matrix)

Section IA – 97.

3111 SOLAR PHOTOVOLTAIC PANELS/MODULES.

This amendment is new to Volume IA of the 2011 Glendale Building and Safety Code to address the design and construction of this new technology not addressed in the base codes.

This amendment incorporates the State Fire Marshalls for installation of solar photovoltaic power systems along with local amendments. This amendment is necessary to provide adequate protection from personal injury and property protection due to specific local conditions.

(Justification: Administrative, Topographic and Climatic - See justifications A, B and C in the attached matrix)

Section IA – 98.

3202.1.2.1 Change of use/occupancy.

This amendment is new to the 2011 Glendale Building and Safety Code.

This amendment establishes additional requirements for work to existing structures below grade within the public right of way which is not addressed in the 2010 California Building Code.

(Justification: Administrative and Topographic - See justifications A or D in the attached matrix)

Section IA – 99.

3306.2 Walkways.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative regulations regarding the construction of protective walkways adjacent to construction sites.

(Justification: Administrative See justification A in the attached matrix)

Section IA – 100.

3306.9.1 Shoring.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative regulations regarding the construction of shoring to protect the public right-of-way.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 101.

3306.10 Protection of sidewalk excavations.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative regulations regarding excavations within the public right-of-way or other public property.

(Justification: Administrative - See justification A in the attached matrix)

Section IA – 102.

3306.11 Protection of obstructions.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.
This amendment establishes administrative regulations regarding the placement of protective barriers to prevent accidents resulting from excavations or obstructions within the public right-of-way.
(Justification: Administrative - See justification A in the attached matrix)

Section IA – 103.

3308.3 Street Use Permits.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.
This amendment establishes administrative regulations regarding the use of the public right-of-way.
(Justification: Administrative - See justification A in the attached matrix)

Section IA – 104.

3308.4 Mixing mortar on public property.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.
This amendment establishes administrative regulations regarding the use of public property to mix mortar, concrete or similar material.
(Justification: Administrative - See justification A in the attached matrix)

Section IA – 105.

Appendix I. PATIO COVERS.

This amendment adopts appendix Chapter I which permits patio covers meeting the requirements of the appendix section to be designed for different loads than the residence to which it is accessory.
(Justification: Administrative - See justification A in the attached matrix)

Section IA – 106.

Appendix J. GRADING.

This amendment is essentially the same as in the 2008 Glendale Building and Safety Code.
This amendment establishes grading standards for the 2011 Glendale Building and Safety Code by adopting and amending Appendix Chapter J of the 2009 International Building Code (IBC). In general, the basic grading standards are similar, but not identical, to previous standards. Local amendments are proposed where such amendments are deemed necessary to provide adequate protection from personal injury and property protection due to specific local conditions.
(Justification: Administrative, Geologic, Climatic & Topographic - See justifications E, F, G and H in the attached matrix.)

Section IA – 107.

Appendix J101.1 Scope.

This amendment is the same as in the 2008 Glendale Building and Safety Code.
This amendment clarifies the scope of the Glendale Building and Safety Code pertaining to grading.
(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 108.

Appendix J101.3 Hazards.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds administrative standards to regulate the manner in which hazardous grading conditions must be addressed.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 109.

Appendix J101.4 Safety precautions.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds administrative standards to establish minimum standards which are necessary to ensure that grading operations are conducted in a safe manner, and establishes the authority for the building official to require a property owner to correct and/or abate unacceptable grading conditions. This amendment also identifies areas of the City that are subject to specific hillside grading standards.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 110.

Appendix J101.5 Protection of utilities.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds administrative standards to establish the permittee's responsibility related to protection of utilities during all grading operations. Such express responsibility is not contained within the model International Building Code (IBC).

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 111.

Appendix J101.6 Protection of adjacent property.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds administrative standards to establish the permittee's responsibility related to protection of adjacent property during all grading operations. Such express responsibility is not contained within the model International Building Code (IBC).

(Justification: Administrative – See justification E in the attached matrix.)

Section IA – 112.

Appendix J101.7 Storm water control measures.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds administrative standards and construction standards to establish the permittee's responsibility related to control of storm water contamination. This amendment ensures that grading operations are conducted in a manner that is consistent with mandatory requirements under regional and federal storm water protection statutes.

(Justification: Administrative & Climatic - See justifications E and G in the attached matrix.)

Section IA – 113.

Appendix J101.8 Conditions of approval.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds administrative standards to establish standard conditions of approval for all grading permits.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 114.

Appendix J101.9 Rules and regulations.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds administrative standards to establish standard rules and regulations that apply to the issuance of all grading permits. This amendment establishes the preemptive application of more restrictive standards when multiple, conflicting standards exist.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 115.

Appendix J102 DEFINITIONS.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds and clarifies various definitions for terms used within Appendix Chapter J.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 116.

Appendix J103.1 Permits required.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds and modifies administrative standards pertaining to permit requirements for grading operations.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 117.

Appendix J103.2 Exemptions.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment adds and modifies the types of projects which are exempt from grading permit requirements. In general, the types of grading projects for which a grading permit is not required are similar to exempted projects under the 2008 Glendale Building and Safety Code.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 118.

Appendix J103.3 Unpermitted grading.

This amendment is similar to the 2008 Glendale Building and Safety Code.

This amendment establishes administrative standards, including the permittee's responsibility, pertaining to grading operations that are performed which exceed the scope of a validly issued grading permit.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 119.

Appendix J103.4 Grading fees.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes administrative standards necessary to determine fees that are associated with grading plan check and grading permit issuance. Furthermore, this amendment establishes said fees by resolution of the City Council.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 120.

Appendix J103.5 Bonds and insurance.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes various administrative standards related to grading bonds that are required as a condition of permit issuance.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 121.

Appendix J104.2 Site plan requirements.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes administrative requirements related to information required on grading plans.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 122.

Appendix J104.2.1 Grading designation.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes administrative and technical standards related to grading plan requirements for projects that are located within hillside areas (mountainous terrain) or exceeding 5,000 cubic yards in all other areas. Projects that are located within hillside areas or which exceed 5,000 cubic yards shall comply with “engineered grading” standards.

(Justification: Administrative, Geologic, Climatic & Topographic - See justifications E, F, G & H in the attached matrix.)

Section IA – 123.

Appendix J104.2.2 Regular grading requirements.

This amendment is essentially the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes administrative and technical standards related to grading plan requirements for projects that are not located within hillside areas (mountainous terrain) or involve less than 5,000 cubic yards in all other areas. Projects that are not located within hillside areas and which involve less than 5,000 cubic yards shall comply with “regular grading” standards. This amendment also clarifies a licensed professional shall prepare such grading plans for projects which slope of grade exceeds 3:1.

(Justification: Administrative, Geologic, Climatic & Topographic – See justifications E, F, G & H in the attached matrix.)

Section IA – 124.

Appendix J104.2.3 Engineered grading requirements.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes administrative and technical standards related to grading plan requirements for projects that are located within hillside areas (mountainous terrain) or exceeding 5,000 cubic yards in all other areas. Projects that are located within hillside areas or which exceed 5,000 cubic yards shall comply with “engineered grading” standards.

(Justification: Administrative, Geologic, Climatic & Topographic - See justifications E, F, G & H in the attached matrix)

Section IA – 125.

Appendix J104.3 Geotechnical engineering and engineering geology report.

This amendment is essentially the same as in the 2008 Glendale Building and Safety Code. This amendment identifies that a geotechnical report shall be required on all projects requiring a grading permit. This amendment establishes minimum requirements for information that is to be included in soils engineering and engineering geology reports, by adding additional requirements beyond what is required under the 2009 International Building Code (IBC).

(Justification: Administrative, Geologic, Climatic & Topographic - See justifications E, F, G & H in the attached matrix.)

Section IA – 126.

Appendix J104.4 Liquefaction study.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes parameters to identify when a liquefaction study is required. These amended standards are consistent with state-mandated requirements associated with the California Seismic Hazard Map Act.

(Justification: Geologic & Topographic - See justifications F & H in the attached matrix.)

Section IA – 127.

Appendix J104.5 Slope failure reports.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes minimum requirements for information that is to be included in slope failure reports, by adding additional requirements that are deficient in the 2009 International Building Code (IBC). Slope failure report requirements will be based on the classification of the failure, as either a Class I, Class II or Class III slope failure as defined in Appendix J.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 128.

Appendix J104.6 Permit issuance.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes various administrative standards related to the issuance of grading permits.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 129.

Appendix J105.3 Field engineer.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the administrative responsibility of the field engineer for all grading projects.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 130.

Appendix J105.4 Geotechnical engineer.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the administrative responsibility of the soils engineer for all grading projects.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 131.

Appendix J105.5 Engineering geologist.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the administrative responsibility of the engineering geologist for all grading projects.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 132.

Appendix J105.6 Permittee.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the administrative responsibility of the permittee for all grading projects.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 133.

Appendix J105.7 Building official.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the authority of the building official, and identifies various stages of grading inspection activity that are generally required for, and must be approved for, all grading projects.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 134.

Appendix J105.8 Notification of noncompliance.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the administrative responsibility of the field engineer, the soils engineer and the engineering geologist in reporting any observation that work is not being performed in conformance with the approved grading plans.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 135.

Appendix J105.9 Transfer of responsibility.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the permittee's responsibility in identifying changes in responsibility when there is a change in the field engineer, the soils engineer or the engineering geologist.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 136.

Appendix J105.10 Non-inspected grading.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment expressly prohibits any person from owning, using, occupying or maintaining any grading which is not authorized by a grading permit and an approved grading plan.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 137.

Appendix J105.11 Routine field inspections and reports.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes various administrative standards pertaining to grading inspection reports.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 138.

Appendix J105.12 Completion of work.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes various administrative requirements related to final plans and technical reports that shall be submitted to the building official upon completion of all grading projects.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 139.

Appendix J105.13 Notification of completion.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the administrative responsibility of the permittee to notify the building official of completion of grading operations.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 140.

Appendix J105.14 Change of ownership.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the administrative responsibility of the property owner to secure a new grading permit when property ownership changes.

(Justification: Administrative - See justification E in the attached matrix.)

Section IA – 141.

Appendix J106.1 Maximum cut slope.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the maximum permissible slope for grading projects that involve cut slopes.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 142.

Appendix J106.3 Drainage.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes drainage parameters to ensure the proper disposal of excess storm water from a site.

(Justification: Climatic & Topographic - See justifications G & H in the attached matrix.)

Section IA – 143.

Appendix J107.1 General.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes general provisions applicable to the placement of fill material on a site.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 144.

Appendix J107.2 Surface preparation.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes specific requirements pertaining to the proper surface preparation of a site prior to the placement of fill material.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 145.

Appendix J107.3 Benching.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes general provisions applicable to the construction of bench cuts within the supporting surface beneath certain fill slopes to increase stability.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 146.

Appendix J107.6 Maximum slope.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes the maximum permissible slope for grading projects that involve fill slopes.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 147.

Appendix J107.7 Slopes to receive fill.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes a minimum setback for certain fill slopes from the top edge of a slope, when such fill is placed above an existing slope.

(Justification: Geologic, Climatic & Topographic – See justifications F, G & H in the attached matrix.)

Section IA – 148.

Appendix J107.8 Inspection of fill.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes minimum inspection and observation responsibilities for the soils engineer during the placement of fill material.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 149.

Appendix J107.9 Testing of fills.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes minimum soil testing requirements for grading activities that involve the placement of fill material.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 150.

Appendix J108 SETBACKS AND RETAINING WALLS.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes standards related to setbacks for graded slopes and retaining walls relative to both the top and/or toe of a graded slope in relationship to property lines or structures. This amendment also establishes specific requirements that are applicable to the design, construction and inspection of retaining walls and crib walls that are intended to retain earth material. Additionally, this amendment authorizes the building official to approve an alternate setback dimension from a graded slope and authorizes the building official to require an investigation and recommendation from a qualified soils engineer or engineering geologist.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 151.

Appendix J109.1 General.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes general requirements pertaining to drainage facilities associated with sites which will involve grading activities.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 152.

Appendix J109.3 Interceptor drains and overflow protection.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes drainage requirements that are specifically associated with interceptor drains and overflow protection.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 153.

Appendix J109.5 Disposal.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes specific requirements to regulate the disposal of concentrated storm water that is collected by drainage facilities that are constructed as part of an approved grading plan.

(Justification: Geologic, Climatic & Topographic – See justifications F, G & H in the attached matrix.)

Section IA – 154.

Appendix J110.1 General

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment establishes general requirements to control erosion of graded slopes.

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 155.

Appendix J111 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) COMPLIANCE.

This amendment is essentially similar to the 2008 Glendale Building and Safety Code.

This amendment establishes minimum standards that apply to all grading and construction related projects to comply with statutorily mandated requirements associated with the National Pollutant Discharge Elimination System (NPDES).

(Justification: Geologic, Climatic & Topographic - See justifications F, G & H in the attached matrix.)

Section IA – 156.

Appendix J112 REFERENCED STANDARDS.

This amendment is the same as in the 2008 Glendale Building and Safety Code.

This amendment identifies referenced standards that are applicable to the proper design, construction and inspection of grading projects.

(Justification: Administrative - See justification E in the attached matrix.)

Volume IB
Residential Standards

Section 1B – 2.

Chapter 1 Division II, Section R104.10.2 Fire code official concurrence.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment provides administrative clarification regarding the need for concurrence by the Fire code official on appeals/slight code modifications which involve fire/life safety issues.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 3.

Chapter 1 Division II, Section R104.11.2 Fire code official concurrence.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment provides administrative clarification regarding the need for concurrence by the Fire code official on the use of alternate materials or methods of construction which involve fire/life safety issues.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 4.

Chapter 1 Division II, Section R105.2 Work exempt from permit.

This amendment is new to the 2011 Glendale Building and Safety Code.

This amendment clarifies types of work which are exempt from building permit requirements, reducing the maximum height for walls from 6 feet to 18 inches. This amendment also added temporary frames (story poles) to be exempt from permit to match legislation passed by City Council in 2008.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 5.

Chapter 1 Division II, Section R105.3 Application for permit.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment establishes the requirement for a plan review fee to be paid.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 6.

Chapter 1 Division II, Section R105.3.1.1 Determination of substantially improved or substantially damaged existing buildings in flood hazard areas.

This amendment is new to the 2011 Glendale Building and Safety Code.

This amendment is necessary to be consistent with building code language.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 7.

Chapter 1 Division II, Section R105.3.2 Time limitation of application.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment establishes a time limit for plan review to match legislation passed by City Council in 2005. This amendment also establishes an extension of plan check to match legislation passed by City Council in 2009.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 8.

Chapter 1 Division II, Section R105.3.3 Plan review fees.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment provides for the establishment of fees by resolution of the City Council.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 9.

Chapter 1 Division II, Section R105.5 Expiration.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment provides a time limit for plan review to match legislation passed by city Council in 2005 and establishes the procedures for renewing action on an expired application.

(Justification: Administrative - See justification A in the attached matrix)

Section IB- 10.

Chapter 1 Division II, Section R105.8 Responsibility.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment clearly establishes the permit applicant's responsibilities in express fashion, rather than reliance upon implicit understanding of same.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 11.

Chapter 1 Division II, Section R106.3.4 Deferred submittals.

This amendment is added to Volume IB of the 2011 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. This amendment provides portions of design work to be deferred and submitted within a specified period.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 12.

Chapter 1 Division II, Section R108.6 Work commencing before permit issuance.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment establishes the fees to be collected when a permit is issued for which the work has commenced before obtaining the permit.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 13.

Chapter 1 Division II, Section R109.1.5.3 Structural observation.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment refers to administrative procedures to be followed when structural observation is required.
(Justification: Administrative - See justification A in the attached matrix)

Section IB – 14.

Chapter 1 Division II, Section R109.1.5.4 Sound transmission control.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment refers to administrative procedures to be followed when inspecting lath and gypsum board.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 15.

Chapter 1 Division II, Section R112 BOARD OF APPEALS.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment establishes the joint Building and Fire Board of Appeals and the administrative procedures for the board.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 16.

Chapter 1 Division II, Section R113.1 Unlawful acts.

This amendment is similar to a previous amendment to Volume I of the 1999 and 2002 Glendale Building and Safety Code.

This amendment re-introduces administrative procedures when working with unsafe buildings and structures.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 17.

Chapter 1 Division II, Section R114.4 Violation penalties.

This amendment is similar to a previous amendment to Volume I of the 1999 and 2002 Glendale Building and Safety Code.

This amendment re-introduces administrative procedures when working with unsafe buildings and structures. This amendment is necessary to clarify administrative enforcement procedures, and establishes penalties

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 18.

Chapter 1 Division II, Section R114.1 Notice to owner.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment refers to administrative procedures to allow the building official to enforce local regulations.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 19.

Chapter 1 Division II, Section R114.2 Unlawful continuance.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment identifies violations as misdemeanors.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 20.

Chapter 1 Division II, Section R115 UNSAFE STRUCTURES AND EQUIPMENT.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment refers to administrative procedures to be followed when working with unsafe buildings or structures.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 21.

Chapter 1 Division II, Section R116 CONSTRUCTION TOILET FACILITIES.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment requires construction sites to be equipped with available toilet facilities.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 22.

Chapter 1 Division II, Section R117 ON SITE CONSTRUCTION TRASH AND DEBRIS CONTROL.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment requires trash and debris control for facilities for construction sites,

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 23.

Chapter 1 Division II, Section R118 DISASTER REPAIR AND RECONSTRUCTION.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative procedures related to the repair and reconstruction of structures affected by a disaster.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 24.

Chapter 1 Division II, Section R119 SANDBLASTING.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative regulations regarding sandblasting activities to protect adjoining property from potential damage due to over spray.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 25.

Chapter 1 Division II, Section R120 PROTECTION OF PEDESTRIANS.

This amendment is added to Volume IB of the 2011 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. This amendment provides for the protection of pedestrians during construction.

(Justification: Administrative - See justification A in the attached matrix)

Section IB - 26.

Section R301.1.3.2 Wood frame structures greater than two stories.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment limits non-engineered wood frame construction to one-story.

(Justification: Geologic – See justification B in the attached matrix)

Section IB - 27.

Section R301.1.4 Slopes steeper than 33%.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment prohibits non-engineered wood frame construction on a steep slope greater than 3 to 1.

(Justification: Geologic and Topographic – See justification B and D in the attached matrix)

Section IB - 28.

Section R301.2.2.2.5 Irregular buildings.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment expands the definition of an irregular building by eliminating the exceptions.

(Justification: Geologic and Topographic – See justification B and D in the attached matrix)

Section IB – 29.

Section R302.1.1 Construction on contiguous lots under same ownership or occupancy.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes construction requirements for structures constructed on two or more contiguous lots, when such lots are held under common ownership or occupancy.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 30.

Section R313 AUTOMATIC FIRE SPRINKLER SYSTEMS.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section IB – 31.

Section R314.4 Power source.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section IB – 32.

Section R319.1 Address numbers.

This amendment is similar to a previous amendment to Volume I of the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code.

(Justification: Administrative - See justification A in the attached matrix)

Section IB – 33.

Section R401.1 Application.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. This amendment prohibits the use of wood foundations.

(Justification: Geologic and Climatic – See justification B and C in the attached matrix)

Section IB – 34.

Section R401.4 Soils test.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code.

This amendment codifies conditions of approvals for a building code modification for small projects less than 500 square feet in size. This amendment will also help expedite Building and Safety's plan review process.

(Justification: Geologic – See justification B in the attached matrix)

Section IB – 35.

Section R401.5 Grading.

This amendment is similar to previous amendments to Volume I of the 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code.

(Justification: Administrative, Geologic, Climatic, and Topographic: – See justification E, F, G, and H in the attached matrix)

Section IB – 36.

Section R402.1 Wood Foundation.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. Additionally, the local region is in an area with a very temperate climate, which is not subject to frequent ground freezing. As a combined result of constant moisture and soil which does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms, wood footings experience relatively rapid decay. This amendment will mitigate the detrimental affect of such organisms by prohibiting the use of wood foundations.

(Justification: Climatic - See justification C in the attached matrix)

Section IB – 37.

Section R403.1.2 Continuous footing in Seismic Design Category D₀, D₁, and D₂.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment requires all interior braced wall panels in buildings be supported on continuous footings.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 38.

Section Figure R403.1(2) PERMANENT WOOD FOUNDATION BASEMENT WALL SECTION.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. Additionally, the local region is in an area with a very temperate climate, which is not subject to frequent ground freezing. As a combined result of constant moisture and soil which does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms, wood footings experience relatively rapid decay. This amendment will mitigate the detrimental affect of such organisms by prohibiting the use of wood foundations.

(Justification: Climatic - See justification C in the attached matrix)

Section IB - 39.

Section Figure R403.1(3) PERMANENT WOOD FOUNDATION CRAWL SPACE SECTION.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. Additionally, the local region is in an area with a very temperate climate, which is not subject to frequent ground freezing. As a combined result of constant moisture and soil which does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms, wood footings experience relatively rapid decay. This amendment will mitigate the detrimental affect of such organisms by prohibiting the use of wood foundations.

(Justification: Climatic - See justification C in the attached matrix)

Section IB – 40.

Section R403.1.3 Seismic reinforcing.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment eliminates the exception and prohibits the use of plain concrete footings without reinforcing.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB - 41.

Section R403.1.5 Slope.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code that was not previously addressed in the 2008 Glendale Building and Safety Code. This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code.

This amendment clarifies additional reinforcing for stepped footing assigned to higher Seismic Design Category. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under reinforced footings located on sloped surfaces. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 42.

Section R404.2 Wood foundation wall.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. This amendment prohibits the use of spread wood footings. Additionally, the local region is in an area with a very temperate climate, which is not subject to frequent ground freezing. As a combined result of constant moisture and soil which does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms, wood footings experience relatively rapid decay. This amendment will mitigate the detrimental affect of such organisms by prohibiting the use of wood foundations.

(Justification: Climatic - See justification C in the attached matrix)

Section IB – 43.

Section Table R404.2.3 PLYWOOD GRADE AND THICKNESS OF WOOD FOUNDATION CONSTRUCTION.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment prohibits the use of spread wood footings. Additionally, the local region is in an area with a very temperate climate, which is not subject to frequent ground freezing. As a combined result of constant moisture and soil which does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms, wood footings experience relatively rapid decay. This amendment will mitigate the detrimental affect of such organisms by prohibiting the use of wood foundations.

(Justification: Climatic - See justification C in the attached matrix)

Section IB – 44.

Section R501.1 Application.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code to clarify requirements and address deficiencies in the base codes.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. This amendment limits the prescriptive equipment design weight to a maximum of 400 pounds and a maximum height of 4 feet above the floor or attic level without engineered design. This amendment requires a registered design professional be required to analyze the floor support is adequate and structurally sound to support the heavier equipment loads.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 45.

Section R503.2.4 Openings in horizontal diaphragms.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code.

This amendment establishes prescriptive requirements for openings greater than 4 feet without engineering.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 46.

Figure R503.2.4 OPENINGS IN HORIZONTAL DIAPHRAGMS.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code.

This amendment establishes prescriptive requirements for openings greater than 4 feet without engineering.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 47.

Section R503.3 Particleboard.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment makes the Residential Standards in Volume IB of the 2011 Glendale Building and Safety Code consistent with the Building Standards in Volume IA of the 2011 Glendale Building and Safety Code. This amendment prohibits the use of particle board diaphragms. This amendment is necessary because the severe lateral ground displacement that is frequently experienced throughout the local region results in very strong lateral forces on buildings. Investigations after the Northridge earthquake revealed that this material performed poorly as a lateral force-resisting element.

(Justification: Geologic- see justification B in the attached matrix)

Section IB – 48.

Section R602.3.2 Top plate.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code to address a new exception in the base codes.

This amendment eliminates the use of single top plate construction to maintain the structural integrity of the framing of shear wall systems for building and structures subject to high seismic loads

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 49.

Table R602.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment prohibits the use of staples as fasteners for wood structural panel walls to resist high seismic forces.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 50.

Table R602.3(2) ALTERNATE ATTACHMENTS.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment prohibits the use of staples as fasteners for wood structural panel walls to resist high seismic forces.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 51.

Table R602.10.1.2(2) BACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY (AS A FUNCTION OF BRACED WALL LINE LENGTH).

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment increases the length and limits the location where shear walls sheathed with, lath, plaster or gypsum board are used in multi-level buildings. In addition, shear walls sheathed with other materials are prohibited in Seismic Design Category D₀, D₁ and D₂ to be consistent with the design limitation for similar shear walls found in Volume I of the 2008 Glendale Building and Safety Code.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 52.

Table R602.10.1.2 INTERMITTENT BRACING METHODS.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 53.

Figure R602.10.3.2 ALTERNATE BRACED WALL PANEL.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 54.

Section R602.10.3.3 Method PFH: Portal frame with hold-downs.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code to address new requirements not included in the previous base codes.

This amendment increases the minimum lap splice requirement to ensure design and construction consistency with Section 12.16.1 of ACI 318-05 and improve performance of buildings and structures.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 55.

Figure R602.10.3.3 METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 56.

Table R602.10.4.1 CONTINUOUS SHEATHING METHOD.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 57.

Figure R602.10.4.1.1 METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 58.

Section R602.10.7.1 Braced wall panel support for Seismic Design Category D₂.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

With the higher seismic demand placed on buildings and structures in this region, interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 59.

Section R606.2.4 Parapet walls.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code to address requirements not included in the previous base codes.

This amendment clarifies the requirement by adding the word “or”, it will prevent the use of unreinforced parapets in Seismic Design Category D₀, D₁ or D₂.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 60.

Section R802.8 Lateral support.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment provides provisions to ensure that the ends of wood members and the points of bearing have adequate lateral support to prevent rotation and to help stabilize the members during construction. This proposed amendment is consistent with and similar to requirements contained in the National Design Specification for Wood Construction (NDS).

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 61.

Table R802.5.1(9) RAFTER/CEILING JOIST HEEL JOINT CONNECTION.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

The number of nails required for the heel joint connection per Table R802.5.1(9) can be excessive depending on the rafter slope, spacing, and roof span. This amendment to add the footnote is intended to help prevent the splitting of connecting wood members when large numbers of nail are required as stated in the National Design Specification for Wood Construction (NDS).

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 62.

Section R803.2.4 Openings in horizontal diaphragms.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code.

This amendment provides a reference to Section R503.2.4 for the prescriptive requirements for openings greater than 4 feet. Section R802 of the Code does not provide any prescriptive criteria to limit the maximum roof opening size nor does Section R803 provide any details to address the issue of shear transfer near larger roof openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger roof openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 63.

Section 902.1 Roofing covering materials.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment eliminates the acceptance of Class C roofing materials.

(Justification: Topographic & Climatic– see justification C and D in the attached matrix)

Section IB – 64.

Section R902.1.3 Roof coverings within all other areas.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment prohibits the use of wood roof covering material, and requires other roof coverings to have a Class A rating, or be made of materials meeting the requirements of a Class B roofing assembly in non-high fire hazard areas.

(Justification: Topographic & Climatic– See justification C and D in the attached matrix)

Section IB – 65.

Section R905.3.7 Application.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment changes the minimum number of fasteners for tile roofing material from one fastener to two fasteners per tile even on relatively flat roofs, and increases the minimum side lap requirement for roofing felt. This amendment specifies nailing edge distances to ensure a sturdy connection. This amendment also establishes corrosion resistance characteristics for nails to mitigate water intrusion and water-accelerated corrosion of fastening material which results from heavy rains which occur throughout the local region.

(Justification: Geologic and Climatic- See justification B and C attached matrix)

Section IB – 66.

Section R907.7 Roof sheathing.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment requires existing buildings to be provided with a plywood diaphragm when roofing material is stripped from the structure, if such buildings do not have such a diaphragm,

(Justification: Geologic and Topographic– see justification B and D in the attached matrix)

Section IB – 67.

Section R908 SOLAR PHOTOVOLTAIC PANELS/MODULES.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code to address the design and construction of this new technology not addressed in the base codes.

This amendment incorporates the State Fire Marshalls for installation of solar photovoltaic power systems along with local amendments. This amendment is necessary to provide adequate protection from personal injury and property protection due to specific local conditions.

(Justification: Administrative, Topographic and Climatic - See justifications A, B and C in the attached matrix)

Section IB – 68.

Section R1001.3.1 Vertical reinforcing.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code to address structural deficiencies in the base codes for projects located in Seismic Design Category D, E or F.

This amendment establishes fireplace/chimney be adequately anchored into the concrete foundation. The performance of fireplace/chimney without anchorage to the foundation has been observed to be inadequate during major earthquakes. The lack of anchorage to the foundation can result in the overturning or displacement of the fireplace/chimney.

(Justification: Geologic: – See justification B in the attached matrix)

Section IB – 69.

Appendix I. PATIO COVERS.

This amendment is similar to a previous amendment to Volume I of the 2008 Glendale Building and Safety Code.

This amendment adopts appendix Chapter I which permits patio covers meeting the requirements of the appendix section to be designed for different loads than the residence to which it is accessory.

(Justification: Administrative- see justification A in the attached matrix)

Section IB – 70.

Appendix Chapter A1 of the California Existing Building Code.

This amendment is similar to a previous adoption of Appendix Chapter 1A in Volume I of the 2008 Glendale Building and Safety Code.

This amendment clarifies the adoption of the Appendix Chapter A1 of the Existing Building Code as part of Volume IB of the 2011 Glendale Building and Safety Code.

(Justification: Administrative– See justification A in the attached matrix)

Volume II
Plumbing Standards

Section II – 2.

Appendix 103.4.1 Permit Fees.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.
This amendment provides for the establishment of fees by resolution of the City Council.
(Justification: Administrative- See justification A in the attached matrix)

Section II – 3.

Appendix 103.4.2 Plan Review Fees.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.
This amendment provides for the establishment of fees by resolution of the City Council.
(Justification: Administrative- See justification A in the attached matrix)

Section II – 4.

Appendix 104 BUILDING AND FIRE BOARD OF APPEALS.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.
This amendment establishes administrative procedures regarding appeals.
(Justification: Administrative- See justification A in the attached matrix)

Section II – 5.

815 Water Softener Using Dry Wells for Discharge.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.
This amendment restricts the use of water softener systems using dry wells for the discharge of effluents.
Use of dry wells to dispose of effluents cannot be controlled in a manner which will prevent pollution of ground water.
(Justification: Geologic- See justification B in the attached matrix)

Volume III
Mechanical Standards

Section III – 2.

Appendix 110.1 Building and Fire Board of Appeals.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes the creation of the Building and Fire Board of Appeals.

(Justification: Administrative - See justification A in the attached matrix)

Section III – 3.

Appendix 115.2 Permit Fees.

This amendment is the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment provides for the establishment of fees by resolution of the City Council.

(Justification: Administrative - See justification A in the attached matrix)

Section III – 4.

Appendix 115.3 Plan Review Fees.

This amendment is essentially the same as in the 1999, 2002 and 2008 Glendale Building and Safety Code.

This amendment provides for the establishment of fees by resolution of the City Council.

(Justification: Administrative - See justification A in the attached matrix)

Volume IV
Electrical Standards

Section IV - 2.

90.10. Materials and equipment.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative standards used to consider electrical materials and equipment as approved for use. Such administrative standards include determinations by the building official.

(Justification: Administrative - See justification A in the attached matrix)

Section IV – 3.

90.11. Revocation and approval for use.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative standards regarding the revocation of approvals granted by the building official to use electrical materials and equipment.

(Justification: Administrative - See justification A in the attached matrix)

Section IV – 4.

90.12. Building and Fire Board of Appeals.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes the creation of the joint Building and Fire Board of Appeals.

(Justification: Administrative- see justification A in the attached matrix)

Section IV – 5.

Article 91 ENFORCEMENT.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative procedures regarding the enforcement of electrical standards throughout the city.

(Justification: Administrative - See justification A in the attached matrix)

Section IV – 6.

Article 92 PERMITS AND FEES.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes administrative provisions regarding the determination and collection of fees for services, and the administration of permits and inspections and deleting the special annual permit for maintenance work. This amendment also deleted the special permit to owners for work in own residence which is already contained in the state license laws.

(Justification: Administrative - See justification A in the attached matrix)

Section IV – 7.

690.96 Solar Photovoltaic panels/modules.

This amendment is new to Volume IB of the 2011 Glendale Building and Safety Code to address the design and construction of this new technology.

This amendment establishes the requirements for the design and installation of photovoltaic panels/modules which is not provided in the base codes. This amendment is necessary to provide adequate protection from personal injury and property protection due to specific local conditions.

(Justification: Administrative, Topographic and Climatic - See justifications A, B and C in the attached matrix)

Volume V
Housing Standards

Section V – 2.

203. HOUSING ADVISORY AND APPEALS BOARD.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment establishes the creation of the joint Building and Fire Board of Appeals.

(Justification: Administrative - See justification A in the attached matrix)

Section V – 3.

1101.2. Notice and Order.

This amendment is the same as in the 2002 and 2008 Glendale Building and Safety Code.

This amendment replaces references to "substandard" and "dangerous" conditions with the term "unsafe", as determined by the building official. Additionally, this amendment makes proper reference to the Building and Fire Board of Appeals.

(Justification: Administrative - See justification A in the attached matrix)

Volume VI
Fire Standards

Section VI – 2.

CHAPTER 1 ADMINISTRATION.

Since this chapter is not adopted by the State Fire Marshal, this amendment is required in order to adopt the administrative provisions of the model code related to the fire prevention bureau's organization, authority, duties, permits, fees, and similar administrative subjects. This amendment adopts the chapter overall; subsequent amendments (VI-3 through 13) make amendments to specific sections within the chapter. This chapter is similar to the provisions of the 2008 Glendale Building and Safety Code Appendix Chapter 1.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 3.

103.5 Fire investigation unit.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code which establishes a Fire Investigation Unit within the fire department. The revisions made included minor legal clarifications as recommended by the City Attorney.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 4.

103.6 Arrests.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code which authorizes fire department employees to arrest persons committing arson.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 5.

104.1.1 Environmental protection.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code which summarizes the existing environmental programs the Glendale Fire Department is responsible for which have effective dates ranging between 1986 and 1997. The revisions made included minor legal clarifications as recommended by the City Attorney.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 6.

104.12 False alarms.

This amendment is the same as the 2008 Glendale Building and Safety Code. This amendment authorizes a service charge for Fire Department response to false alarms.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 7.

105.6.48 Additional operational permits.

This amendment is the same as the 2008 Glendale Building and Safety Code which includes permits that are not addressed by the model code. The revisions made included minor legal clarifications as recommended by the City Attorney.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 8.

105.7 Required construction permits.

This amendment is new to the 2011 Glendale building and Safety Code and is administrative in nature to adjust code section numbering to be consistent with the amendment of Section VI-9.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 9.

105.7.15 Additional construction permits.

This amendment is the same as the 2008 Glendale Building and Safety Code which includes permits that are not addressed by the model code. The revisions made included minor legal clarifications as recommended by the City Attorney.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 10.

108 BUILDING AND FIRE BOARD OF APPEALS.

This amendment is essentially the same as in the 2008 Glendale Building and Safety Code. This amendment establishes the joint Building and Fire Board of Appeals and establishes administrative appeals procedures, and refers to the detailed provisions contained in Volume I. The revisions made included minor legal clarifications as recommended by the City Attorney.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 11.

109.3 Violation penalties.

This amendment revises the California Fire Code's provisions for penalties associated with fire code violations and refers such provisions to Volume I and Volume VI Chapter 4906. Essentially, all issues associated with fees are established by Resolution of the City Council. The revisions made included minor legal clarifications as recommended by the City Attorney.

(Justification: Administrative - See justification A in attached matrix.)

Section VI – 12.

113.3 Work commencing before permit issuance.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code.

This amendment provides the Fire Department with administrative provisions for assessing fees for work done or commenced without a permit.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 13.

113.6 Fees for services; establishment; review.

This amendment is the same as the 2008 Glendale Building and Safety Code. This amendment provides the Fire Department with administrative provisions for the establishment and review of fees for services.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 14.

202 FALSE ALARM.

This amendment defines the term "False Alarm" by combining the definition of the 2010 California Fire Code with that of the 2008 Glendale Building and Safety Code.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 15.

CHAPTER 3 GENERAL PRECAUTIONS AGAINST FIRE

This amendment is essentially the same as in the 2008 Glendale Building and Safety Code. Since chapter 3 of the International Fire Code is not adopted by the State Fire Marshal, this amendment is necessary in order to apply the guidelines they contain.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 16.

301.3 Discontinuance of hazardous, offensive, or nuisance conditions.

This amendment is the same as the 2008 Glendale Building and Safety Code which authorizes the fire code official to require the discontinuance of any hazardous, offensive, or nuisance conditions.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 17.

CHAPTER 5 FIRE SERVICE FEATURES

This amendment is essentially the same as in the 2008 Glendale Building and Safety Code. Since chapter 5 of the International Fire Code is not adopted by the State Fire Marshal, this amendment is necessary in order to apply the guidelines they contain.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 18.

504.4 High-rise buildings.

This amendment is added to provide an emergency helicopter landing facility on new high-rise buildings and at least one smoke proof exit enclosure serving all floors for safe evacuation and rescue of the building occupants, and for firefighting operations. The requirements are the same as the 2008 Glendale Building and Safety Code.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 19.

504.5 Door signage.

This section is the same as the 2008 Glendale Building and Safety Code. This amendment facilitates rapid fire department access into and within structures for emergency operations by having exterior and interior doors labeled as to the identity of the room's function.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 20.

505.1 Address identification.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code but also incorporates the language of the new 2010 California Fire Code. This amendment facilitates rapid fire department response to structures by ensuring adequate identification of buildings' address numbers.

(Justification: Climatic, Topographic - See justification C & D in the attached matrix.)

Section VI – 21.

508.1.4 Layout

This amendment is similar to the 2008 Glendale Building and Safety Code. It makes only minor amendments to the 2010 California Fire Code by enhancing the layout of the fire command center already required in high-rise buildings for fire department use during emergencies.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 22.

508.1.5 Required features.

This amendment is similar to the 2008 Glendale Building and Safety Code. It makes only minor amendments to the 2010 California Fire Code by enhancing the room size and features of the fire command center already required in high-rise buildings for fire department use during emergencies.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 23.

604.2.14.1.1 Fuel supply.

This amendment is the same as that of the 2008 Glendale Building and Safety Code. This amendment ensures a sufficient fuel supply is provided for the emergency generator of high-rise buildings which provides emergency power for key life-safety equipment, such as fire pumps, elevators, smoke control, egress lighting, etc.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 24

605.11 Solar Photovoltaic Power Systems

This section is new to the 2011 Glendale Building and Safety Code. The provisions incorporate the State Fire Marshal guidelines for installation of solar photovoltaic power systems along with local amendments.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 25.

901.1.1 Aesthetics.

This amendment is the same as the 2008 Glendale Building and Safety Code and is provided to ensure aesthetics of fire protection systems are taken into consideration by designers and installers, and to provide consistency with the city's zoning code.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 26.

901.6 Inspection, testing, and maintenance.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code. This amendment identifies the inspection, testing, and maintenance intervals of fire protection equipment, and specifies the required qualifications of those performing such services. Section VI-27 is a continuation of this section.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 27.

TABLE 901.6 REQUIRED CERTIFICATION SUBMITTAL INTERVALS AND QUALIFICATIONS.

This amendment is a continuation of the previous section, VI-25, and is essentially the same as the 2008 Glendale Building and Safety Code with only minor clarifications. This amendment identifies the requirements described in Section VI-26 in table format.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 28.

901.10 Critical equipment.

This amendment is the same as the 2008 Glendale Building and Safety Code. This amendment defines “critical equipment”, and then establishes criteria for its location, ventilation, signage, and graphics.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 29.

903.2 Where required.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code reflecting Glendale’s fire sprinkler ordinance for both new and existing buildings adopted in 1989. The section includes administrative procedures for notification and enforcement. The revisions made include minor legal clarifications as recommended by the City Attorney.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 30.

903.3.1.2 NFPA 13R sprinkler systems.

This amendment, the same as in the 2008 Glendale Building Code, repeals the section which allows the use of a sprinkler standard intended for multifamily buildings four stories in height or less. The provision has consistently been repealed in previous editions of the Glendale Building and Safety Code and requires multifamily buildings’ sprinkler systems to meet the same standards as other buildings (NFPA 13).

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 31.

903.3.5.2 Secondary water supply.

This amendment is the same as in the 2008 Glendale Building Code. This amendment specifies the flow and duration requirements for on-site water supplies in new high-rise buildings.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 32.

906.8 Cabinets.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment contains provisions for fire extinguisher cabinets.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 33.

906.9.1 Extinguishers weighing 40 pounds or less.

This amendment revises the maximum mounting height of fire extinguishers to be consistent with the disabled access provisions of the California Building Code.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 34.

907.7.5 Monitoring.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment requires fire alarm systems to be monitored by an approved supervising station that is listed by Underwriter's Laboratories.

(Justification: Geologic, Climatic, Topographic - See justification matrix key, B, C, & D.)

Section VI – 35.

907.8.2 Certification and record of completion.

This amendment first appeared in the 1989 Glendale Building and Safety Code and is the same as in all editions since. This amendment requires that all new fire alarm systems and existing systems that have proven to be unreliable be certificated with Underwriters Laboratories, Inc.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 36.

913.6 Fire pumps and pump rooms.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment establishes design criteria for fire pumps and their rooms.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 37.

914.3.1 Combination automatic sprinkler / standpipe system.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code and applies to high-rise buildings. This amendment modifies the model code by including a redundant water supply to the sprinkler system on each floor of high-rise buildings.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 38.

TABLE 1004.1.1 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT.

This amendment is actually from Volume I. Since the California Fire Code duplicates this chapter from the California Building Code, any amendments made in Volume I must also be made in this volume for consistency. The [B] indicates the language is copied from the Building Code for consistency. See Volume I for a description of the amendment.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 39.

TABLE 1015.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY.

This amendment is actually from Volume I. Since the California Fire Code duplicates this chapter from the California Building Code, any amendments made in Volume I must also be made in this volume for consistency. The [B] indicates the language is copied from the Building Code for consistency. See Volume I for a description of the amendment.

(Justification: Administrative - See justification A in the attached matrix.)

Section VI – 40.

1031 Special egress graphics.

This amendment is the same as in the 2008 Glendale Building and Safety Code. This amendment covers the requirements for specialized signage and graphics in certain occupancies where the egress signage requirements of the model code are either insufficient or silent on the subject.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 41.

1107.9 General design parameters.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code. This provision contains detailed design requirements for new high rise buildings' emergency helicopter landing facilities.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 42.

2206.2 Method of storage.

This amendment is the same as the requirements of the 2008 Building and Safety Code which prohibits above-ground storage of motor vehicle fuels. The following three sections are related.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 43.

2206.2.2 Above-ground tanks located inside buildings.

This amendment is the same as the requirements of the 2008 Building and Safety Code which prohibits above-ground storage of motor vehicle fuels.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 44.

2206.2.3 Above-ground tanks located outside, above-grade.

This amendment is the same as the requirements of the 2008 Building and Safety Code which prohibits above-ground storage of motor vehicle fuels.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 45.

2206.2.4 Above-ground tanks located in above-grade vaults or below-grade vaults.

This amendment is the same as the requirements of the 2008 Building and Safety Code which prohibits above-ground storage of motor vehicle fuels.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 46.

CHAPTER 25 TIRE REBUILDING AND TIRE STORAGE

This amendment is the same as in the 2008 Glendale Building and Safety Code. Since chapter 25 of the International Fire Code is not adopted by the State Fire Marshal, this amendment is necessary in order to apply the guidelines they contain.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 47.

3404.2.9.6.1 Locations where above-ground tanks are prohibited.

This amendment is the same as in the 2008 Building and Safety Code which addresses where above ground tanks are prohibited.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 48.

3406.2.4 Capacity limitation.

This amendment is similar to the 2008 Building and Safety Code which limits the capacity of combustible liquids allowed in temporary above-ground tanks on construction sites.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 49.

4603.1 Required construction.

This amendment is similar to the 2008 Building and Safety Code (previously in Chapter 9) which omits elimination of fire protection systems in Group U occupancies.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 50.

4603.4 Sprinkler systems.

This amendment is similar to the 2008 Building and Safety Code (previously in Chapter 9) which maintains consistency with other code sections in Chapter 9.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 51.

4603.7.3 Power source.

This amendment is similar to the 2008 Building and Safety Code (previously in Chapter 9) which clarifies the required power source for smoke detectors.

(Justification: Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 52.

4904.3 Very High Fire Hazard Severity Zones in LRA.

This amendment is new to the 2011 Glendale Building and Safety Code. Included are references to the map date and location which is retained on file by the State Fire Marshal. The revisions made include language as recommended by the City Attorney.

(Justification: Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 53.

4906 HAZARDOUS VEGETATION AND FUEL MANAGEMENT

This amendment is similar to the 2008 Glendale Building and Safety Code. This amendment includes administrative procedures for the abatement of hazardous vegetation hazards throughout the city.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 54.

CHAPTER 50 CONTROL AND USE OF HAZARDOUS FIRE AREAS.

This amendment is similar to the 2008 Glendale Building and Safety Code. This amendment includes administrative guidelines and technical requirements for the High Fire Hazard Area.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Section VI – 55.

Appendix B105.1 One- and two-family dwellings.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code with minor changes for clarification purposes only. This amendment covers the requirements for fire-flow calculations for one- and two- family dwellings.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 56.

Appendix B105.2 Buildings other than one- and two-family dwellings.

This amendment is essentially the same as the 2008 Glendale Building and Safety Code with minor changes for clarification purposes only. This amendment covers the requirements for fire-flow calculations for buildings other than one- and two- family dwellings.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 57.

Appendix TABLE C105.1 NUMBER AND DISTRIBUTION OF FIRE HYDRANTS.

This amendment is the same as in the 2008 Glendale Building and Safety Code which establishes fire hydrant spacing requirements.

(Justification: Geologic, Climatic, Topographic - See justification B, C, & D in the attached matrix.)

Section VI – 58.

Appendix D, FIRE APPARATUS ACCESS ROADS, Appendix E, HAZARD CATEGORIES, Appendix F, HAZARD RANKING, and Appendix G, CRYOGENIC FLUIDS – WEIGHT AND VOLUME EQUIVALENTS.

This amendment is the same as in the 2008 Glendale Building and Safety Code. Since these appendices are not adopted by the State Fire Marshal, this amendment is required in order to adopt the guidelines they contain.

(Justification: Administrative, Geologic, Climatic, Topographic - See justification A, B, C, & D in the attached matrix.)

Volume VII
Security Standards

Volume VII is hereby added to the 2011 Glendale Building and Safety Code for administrative reasons to establish Security Standards, with minor changes from its previous form as it appears in the 2002 and 2008 Glendale Building and Safety Code. Updated standards were referenced for deadbolts and definition for demising wall added for clarification. Section 14.2 was also amended relating to posting the location of smoking permitted / prohibited units in multi-unit rental housing to match legislation passed by City Council in March 2010.

Volume VIII
Commercial and Industrial Property Maintenance Standards

Volume VIII is hereby added to the 2011 Glendale Building and Safety Code for administrative reasons to establish Commercial and Industrial Property Maintenance Standards, with no changes from its previous form as it appears in the 2002 and 2008 Glendale Building and Safety Code.

Volume IX
Green Building Standards

Volume IX is new to the 2011 Glendale Building Safety Code based on the 2010 California Green Building Code Standards. Volume IX establishes mandatory green building standards for residential, commercial and public building construction that will achieve major reductions in greenhouse gas emissions, energy consumption, and water use.

Volume IA					
Section	Title	Added to CBC	Deleted from CBC	Amended from CBC	Justification (See below for key to Justifications)
Chapter 1 Division II, 101.2	Scope			X	A
Chapter 1 Division II, 104.10.1	Fire code official concurrence	X			A
Chapter 1 Division II, 104.11.5	Fire code official concurrence	X			A
Chapter 1 Division II, 105.1	Permit Required			X	A
Chapter 1 Division II, 105.2	Work exempt from permit			X	A
Chapter 1 Division II, 105.3	Application for permit			X	A
Chapter 1 Division II, 105.3.2	Time limitation of application			X	A
Chapter 1 Division II, 105.3.3	Plan review fees	X			A
Chapter 1 Division II, 105.5	Expiration			X	A
Chapter 1 Division II, 105.8	Responsibility of permittee	X			A
Chapter 1 Division II, 109.4	Work commencing before permit issuance			X	A
Chapter 1 Division II, 110.3.5	Lath and gypsum board inspection			X	A
Chapter 1 Division II, 110.3.9.1	Structural observation	X			A
Chapter 1 Division II, 113	BOARD OF APPEALS			X	A
Chapter 1 Division II, 114.1	Unlawful acts			X	A
Chapter 1 Division II, 114.4	Violation penalties			X	A
Chapter 1 Division II, 115.1	Authority			X	A
Chapter 1 Division II, 115.3	Unlawful continuance			X	A
Appendix Chapter 1, 116.6	Non-compliance	X			A
Chapter 1 Division II, 116.7	Vacated Buildings	X			A
Chapter 1 Division II, 117	REFUSE AND RECYCLING STORAGE	X			A
Chapter 1 Division II, 118	CONSTRUCTION TOILET FACILITIES	X			A
Chapter 1 Division II, 119	ON SITE CONSTRUCTION TRASH AND DEBRIS CONTROL	X			A
Chapter 1 Division II,120	DISASTER REPAIR AND RECONSTRUCTION	X			A
Chapter 1 Division II, 121	SANDBLASTING	X			A
403.3	Automatic sprinkler system			X	B, C, & D
503.2	Construction on contiguous lots under same ownership or occupancy	X			A
504.2	Automatic sprinkler system increase			X	B, C, & D
506.3	Automatic sprinkler system increase			X	B, C, & D
903.2	Where required	X	X		A, B, C & D

Volume IA					
Section	Title	Added to CBC	Deleted from CBC	Amended from CBC	Justification (See below for key to Justifications)
903.3.1.2	NFPA 13R sprinkler systems		X		B, C, & D
903.3.5.2	Secondary water supply			X	B, C, & D
906.8	Cabinets			X	B, C, & D
906.9.1	Extinguishers weighing 40 pounds or less.			X	A
907.6.5	Monitoring			X	B, C, & D
907.7.2	Record of completion			X	A
911.1.4	Layout approval			X	B, C, & D
911.1.5	Required features			X	B, C, & D
TABLE 1004.1.1	MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT			X	A
TABLE 1015.1	SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY			X	A
1505.1	General			X	C & D
TABLE 1505.1	MINIMUM ROOF COVERING				C & D
	CLASSIFICATION FOR TYPES OF CONSTRUCTION			X	
1505.1.3	<i>Roof coverings within all other areas</i>			X	C & D
TABLE 1507.3.7	CLAY AND CONCRETE TILE ATTACHMENT			X	B & C
1510.7	Roof sheathing	X			B & D
1512	SOLAR PHOTOVOLTAIC PANELS/MODULES	X			A, B & C
1613.6.1	Assumption of flexible diaphragm			X	B
1613.6.7	Minimum distance for Building separation			X	B, C, & D
1613.8	Suspended ceilings	X			B
1615	MODIFICATION TO ASCE 7	X			B
1616	SEISMIC DESIGN	X			B & D
	PROVISIONS FOR HILLSIDE BUILDINGS				
1704.1	General			X	B & D
1704.4	Concrete construction			X	B & D
1704.8	Driven deep foundations			X	B & D
1704.9	Cast-in-place deep foundations			X	B & D
1705.3	Seismic resistance			X	B
1710.1	General			X	A & B
1710.2	Structural observation for seismic resistance			X	B

Volume IA						
Section	Title	Added to CBC	Deleted from CBC	Amended from CBC	Justification (See below for key to Justifications)	
1805.4.3	Drainage discharge			X	C & D	
1807.1.4	Permanent wood foundation systems		X		C	
1807.1.6	Prescriptive design of foundation walls			X	B	
1809.3	Stepped footing			X	B	
1809.7	Prescriptive footings for light-frame construction			X	B	
TABLE 1809.7	PRESCRIPTIVE FOOTINGS SUPPORTING WALLS			X	B	
	OF LIGHT FRAME CONSTRUCTION					
1809.12	Timber footings		X		C	
1810.3.2.4	Timber		X		C	
1908.1	General			X	B	
1908.1.2	ACI 318 Section 21.1.1			X	B	
1908.1.3	ACI 318 Section 21.4			X	B	
1908.1.8	ACI 318 Section 2210			X	B	
1908.1.11	ACI 318 Section 21.6.4.1	X			B	
1908.1.12	ACI 318 Section 21.6.4	X			B	
1908.1.13	ACI 318 Section 21.7.4	X			B	
1908.1.14	ACI 318 Section 21.11.6	X			B	
1909.1	Scope			X	B	
2113.1	Definition			X	A	
2204.1.1	Consumables for welding	X			B	
2205.4	Modification to AISC 341	X			B	
2304.9.1	Fastener requirements			X	B	
2305.4	Quality of nails	X			B	
2305.5	Hold-down connectors	X			B	
2306.2.1	Wood structural panel diaphragms			X	B	
TABLE 2306.2.1(1)	ALLOWABLE SHEAR FOR WOOD	X	X		B	
	STRUCTURAL PANEL DIAPHRAGMS					
2306.3	Wood structural panel shear walls			X	B	
TABLE 2306.3	ALLOWABLE SHEAR FOR WOOD					
	STRUCTURAL PANEL SHEAR WALLS	X	X		B	

Volume IA					
Section	Title	Added to CBC	Deleted from CBC	Amended from CBC	Justification (See below for key to Justifications)
2306.4	Lumber sheathed shear walls		X		B
2306.7	Shear walls sheathed with other materials			X	B
TABLE 2306.7	ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES				
	FOR SHEAR WALLS OF LATH AND PLASTER GYPSUM			X	B
2308.3.4	Braced wall line support			X	B
2308.12.2	Concrete or masonry			X	B
2308.12.4	Braced wall line sheathing			X	B
TABLE 2308.12.4	WALL BRACING IN				
	SEISMIC DESIGN CATEGORY D AND E			X	B
2308.12.5	Attachment of sheathing			X	B
3102.6.2	Membrane less than 20 feet (6096 mm)	X			A
3109.4.4.3	Enclosure; required characteristics	X			D
3111	SOLAR PHOTOVOLTAIC PANELS/MODULES	X			A, B & C
3202.1.2.1	Change of use/occupancy	X			A
3306.2	Walkways			X	A
3306.9.1	Shoring	X			A
3306.10	Protection of sidewalk excavations	X			A
3306.11	Protection of obstructions	X			A
3308.3	Street Use Permits	X			A
3308.4	Mixing mortar on public property	X			A
APPENDIX I	PATIO COVERS	X			A
APPENDIX J	GRADING	X			E, F, G, H
Appendix J101.1	Scope			X	E
Appendix J101.3	Hazards	X			E
Appendix J101.4	Safety precautions	X			E
Appendix J101.5	Protection of utilities	X			E
Appendix J101.6	Protection of adjacent property	X			E
Appendix J101.7	Storm water control measures	X			E & G
Appendix J101.8	Conditions of approval	X			E
Appendix J101.9	Rules and regulations	X			E

Volume IA					
Section	Title	Added to CBC	Deleted from CBC	Amended from CBC	Justification (See below for key to Justifications)
Appendix J102	DEFINITIONS			X	E
Appendix J103.1	Permits required			X	E
Appendix J103.2	Exemptions			X	E
Appendix J103.3	Unpermitted grading	X			E
Appendix J103.4	Grading fees	X			E
Appendix J103.5	Bonds and insurance	X			E
Appendix J104.2	Site plan requirements			X	E
Appendix J104.2.1	Grading designation	X			E, F, G & H
Appendix J104.2.2	Regular grading requirements	X			E, F, G & H
Appendix J104.2.3	Engineered grading requirements	X			E, F, G & H
Appendix J104.3	Geotechnical report			X	E, F, G & H
Appendix J104.4	Liquefaction study			X	F & H
Appendix J104.5	Slope failure reports	X			F, G & H
Appendix J104.6	Permit issuance	X			E
Appendix J105.3	Field engineer	X			E
Appendix J105.4	Geotechnical engineer	X			E
Appendix J105.5	Engineering geologist	X			E
Appendix J105.6	Permittee	X			E
Appendix J105.7	Building official	X			E
Appendix J105.8	Notification of noncompliance	X			E
Appendix J105.9	Transfer of responsibility	X			E
Appendix J105.10	Non-inspected grading	X			E
Appendix J105.11	Routine field inspections and reports	X			E
Appendix J105.12	Completion of work	X			E
Appendix J105.13	Notification of completion	X			E
Appendix J105.14	Change of ownership	X			E
Appendix J106.1	Maximum slope			X	F, G & H
Appendix J106.3	Drainage	X			G & H
Appendix J107.1	General			X	F, G & H
Appendix J107.2	Surface preparation			X	F, G & H

Volume IB						
Section	Title	Added to CRC	Deleted from CRC	Amended from CRC	Justification (See below for key to Justifications)	
Chapter 1 Division II, R104.10.2	Fire code official concurrence	X			A	
Chapter 1 Division II, R104.11.2	Fire code official concurrence	X			A	
Chapter 1 Division II, R105.2	Work exempt from permit			X	A	
Chapter 1 Division II, R105.3	Application for permit			X	A	
Chapter 1 Division II, R105.3.1.1	Determination of substantially improved or substantially damaged existing buildings in flood hazard areas			X	A	
Chapter 1 Division II, R105.3.2	Time limitation of application			X	A	
Chapter 1 Division II, R105.3.3	Plan review fees	X			A	
Chapter 1 Division II, R105.5	Expiration			X	A	
Chapter 1 Division II, R105.8	Responsibility			X	A	
Chapter 1 Division II, R106.3.4	Deferred submittals	X			A	
Chapter 1 Division II, R108.6	Work commencing before permit issuance			X	A	
Chapter 1 Division II, R109.1.5.3	Structural observation	X			A	
Chapter 1 Division II, R109.1.5.4	Sound transmission control	X			A	
Chapter 1 Division II, R109.3.5	Lath and gypsum board inspections			X	A	
Chapter 1 Division II, R112	BOARD OF APPEALS			X	A	
Chapter 1 Division II, R113.1	Unlawful acts			X	A	
Chapter 1 Division II, R113.4	Violation penalties			X	A	
Chapter 1 Division II, R114.1	Notice to owner			X	A	
Chapter 1 Division II, R114.2	Unlawful continuance			X	A	
Chapter 1 Division II, R115	UNSAFE STRUCTURES AND EQUIPMENT	X			A	
Chapter 1 Division II, R116	CONSTRUCTION TOILET FACILITIES	X			A	
Chapter 1 Division II, R117	ON SITE CONSTRUCTION TRASH AND DEBRIS CONTROL	X			A	
Chapter 1 Division II, R118	DISASTER REPAIR AND RECONSTRUCTION	X			A	
Chapter 1 Division II, R119	SANDBLASTING	X			A	
Chapter 1 Division II, R120	PROTECTION OF PEDESTRIANS	X			A	
R301.1.3.2	Woodframe structures greater than two stories			X	B	
R301.1.4	Slopes steeper than 33%	X			B & D	
R301.2.2.2.5	Irregular buildings			X	B & D	
R302.1.1	Construction on contiguous lots under same ownership or occupancy	X			A	
R313	AUTOMATIC FIRE SPRINKLER SYSTEMS	X	X		B, C & D	

Volume IB						
Section	Title	Added to CRC	Deleted from CRC	Amended from CRC	Justification (See below for key to Justifications)	
R314.4	Power source			X	A, B, C & D	
R319.1	Address numbers			X	A	
R401.1	Application			X	B & C	
R401.4	Soils test			X	B	
R401.5	Grading	X			E, F, G, H	
R402.1	Wood foundation		X		B & C	
R403.1.2	Continuous footing in Seismic Design Category D ₀ , D ₁ and D ₂			X	B	
FIGURE R403.1(2)	PERMANENT WOOD FOUNDATION BASEMENT WALL SECTION		X		B & C	
FIGURE R403.1(3)	PERMANENT WOOD FOUNDATION CRAWL SPACE SECTION		X		B & C	
R403.1.3	Seismic reinforcing			X	B	
R403.1.5	Slope			X	B	
R404.2	Wood foundation walls		X		B & C	
TABLE R404.2.3	PLYWOOD GRADE AND THICKNESS					
	OF WOOD FOUNDATION CONSTRUCTION		X		B & C	
R501.1	Application			X	B	
R503.2.4	Openings in horizontal diaphragms	X			B	
FIGURE R503.2.4	OPENINGS IN HORIZONTAL DIAPHRAGMS	X			B	
R503.3	Particleboard		X		B	
R602.3.2	Top plate			X	B	
TABLE R602.3(1)	FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			X	B	
TABLE R602.3(2)	ALTERNATE ATTACHMENTS			X	B	
TABLE R602.10.1.2(2)	BRACING REQUIREMENTS BASED ON SEISMIC DESIGN			X	B	
	CATEGORY (AS A FUNCTION OF BRACED WALL LINE LENGTH)					
TABLE R602.10.2	INTERMITTENT BRACING METHODS			X	B	
FIGURE R602.10.3.2	ALTERNATE BRACED WALL PANEL			X	B	
R602.10.3.3	Method PFH: Portal frame with hold-downs			X	B	
FIGURE R602.10.3.3	METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS			X	B	
TABLE R602.10.4.1	CONTINUOUS SHEATHING METHOD			X	B	
FIGURE R602.10.4.1.1	METHOD CS-PF: CONTINUOUS			X	B	
	PORTAL FRAME PANEL CONSTRUCTION					

Volume IB					
Section	Title	Added to CRC	Deleted from CRC	Amended from CRC	Justification (See below for key to Justifications)
R602.10.7.1	Braced wall panel support for Seismic Design Category D ₂		X		B
R606.2.4	Parapet walls			X	B
R802.8	Lateral support			X	B
TABLE R802.5.1(9)	RAFTER/CEILING JOIST HEEL JOINT CONNECTION			X	B
R803.2.4	Openings in horizontal diaphragms	X			B
R902.1	Roofing covering materials			X	C & D
R902.1.3	Roof coverings in all other areas			X	C & D
R905.3.7	Application			X	A
R907.7	Roof sheathing	X			B & D
R908	SOLAR PHOTOVOLT AIC PANELS/MODULES	X			A, B & C
R1001.3.1	Vertical reinforcing			X	B
APPENDIX H	PATIO COVERS	X			A
APPENDIX Chapter 1A	CALIFORNIA EXISTING BUILDING CODE	X			A

Volume VI					
Section	Title	Added to CFC	Deleted from CFC	Amended from CFC	Justification (See below for key to Justifications)
103.5	Fire investigation unit	X			A
103.6	Arrests	X			A
104.1.1	Environmental protection	X			A
104.12	False alarms	X			A
105.6.48	Additional operational permits	X			A
105.7	Required construction permits			X	A
105.7.15	Additional construction permits	X			A
108	Building and Fire Board of Appeals			X	A
109.3	Violation penalties			X	A
113.3	Work commencing before permit issuance			X	A
113.6	Fees for services; establishment; reviews	X			A
202	Definitions - False Alarm			X	A
301.3	Discontinuance of hazardous, offensive, or nuisance conditions	X			A
504.4	High rise buildings	X			B, C, & D
504.5	Door signage	X			A
505.1	Address identification			X	C & D
508.1.4	Layout			X	B, C, & D
508.1.5	Required features			X	B, C, & D
604.2.14.1.1	Fuel supply			X	B, C, & D
605.11	Solar Photovoltaic Power Systems	X			A
901.1.1	Aesthetics	X			A
901.6	Inspecting, testing and maintenance			X	A
TABLE 901.6	REQUIRED CERTIFICATION SUBMITTAL INTERVALS	X			A
	AND QUALIFICATIONS				
901.10	Critical equipment	X			B, C, & D
903.2	Where required	X	X		A, B, C & D
903.3.1.2	NFPA 13 R sprinkler systems		X		B, C, & D
903.3.5.2	Secondary water supply			X	B, C, & D
906.8	Cabinets			X	B, C, & D

Volume VI					
Section	Title	Added to CFC	Deleted from CFC	Amended from CFC	Justification (See below for key to Justifications)
906.9.1	Extinguishers weighing 40 pounds or less			X	A
907.7.5	Monitoring			X	B, C, & D
907.8.2	Certification and record of completion			X	A
913.6	Fire pumps and pump rooms			X	B, C, & D
914.3.1	Combination automatic sprinkler/standpipe system			X	B, C, & D
TABLE 1004.1.1	MAXIMUM FLOOR AREA ALLOWANCE PER OCCUPANT			X	A
TABLE 1015.1	SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY			X	A
1031	Special egress graphics	X			B, C, & D
1107.9	General design parameters	X			B, C, & D
2206.2	Method of storage			X	B, C, & D
2206.2.2	Above-ground tanks located inside buildings		X		B, C, & D
2206.2.3	Above-ground tanks located outside buildings		X		B, C, & D
2206.2.4	Above-ground tanks located in vaults		X		B, C, & D
3404.2.9.6.1	Locations where above-ground tanks are prohibited			X	B, C, & D
3406.2.4	Capacity limitation			X	B, C, & D
4603.1	Required construction			X	B, C, & D
4603.4	Sprinkler systems			X	B, C, & D
4603.7.3	Power source			X	B, C, & D
4904.3	Very High Fire Hazard Severity Zones in LRA	X			A, B, C, & D
4906	Hazardous Vegetation and Fuel Management	X	X		A, B, C, & D
Chapter 50	Control and Use of Hazardous Fire Areas	X			A, B, C, & D
APPENDIX B105.1	One- and Two-Family Dwellings			X	B, C, & D
APPENDIX B105.2	Buildings other than one- and two-family dwellings			X	B, C, & D
Appendix C Table C105.1	Number and Distribution of Fire Hydrants			X	B, C, & D
APPENDICES D, E, F, G	FIRE APPARATUS ACCESS ROADS		X		A, B, C, & D
	HAZARD CATEGORIES				
	HAZARD RANKING				
	CRYOGENIC FLUIDS -				
	WEIGHT AND VOLUME EQUIVALENTS				

Key to Justifications for Amendments to Title 24 of the California Code of Regulations

- A. This amendment is necessary for administrative clarification, and does not modify a California Building Standard pursuant to California Health and Safety Code Sections 17958, 17958.5 and 17958.7. This amendment establishes administrative standards for the effective enforcement of building standards throughout the City of Glendale.
- B. This amendment is justified on the basis of a local geologic condition. The City is subject to earthquake hazards caused by its location on the Sierra Madre fault near the base of the San Gabriel Mountains. Said fault is the eastward extension of the same fault upon which the 1971 San Fernando earthquake originated. Other faults which potentially could cause seismic activity in the City include the Verdugo fault located near the southwest edge of the Verdugo Mountains and its branches to the east, the Sycamore Canyon fault, the Scholl Canyon fault and the Eagle Rock and San Rafael faults. The York Boulevard fault is also important in that it is a western extension of the Raymond Hill fault for which there is considerable evidence for recent geologic activity. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes earthquake faults within and through the jurisdictional limits of the City, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.
- C. This amendment is justified on the basis of a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the city. The hot, dry weather in combination with Santa Ana winds frequently results in wildland fires in the thousands of acres of brush-covered slopes in the Verdugo and San Rafael Hills, Chevy Chase Hills, and Repetto Hills area of the City. These areas extend from the City's boundary on the east to the Angeles National Forest in the north and the Verdugo Mountains at the Burbank boundary to the west. The aforementioned conditions combined with the geological characteristics of the hills within the City create hazardous conditions for which departure from the California Building Standards Code is required.
- D. Glendale topography includes significant hillsides with narrow and winding access, which makes timely response by fire suppression vehicles difficult. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The modifications and additions to the California Building Standards Code are reasonably necessary to combat the hazards brought about by local climatic conditions. Glendale has a desert weather pattern with monsoon type rain followed by long periods of hot, dry weather. The heavy rains tend to oversaturate the soil for a short time period during the year, having a detrimental effect on in-ground structures affected by varying moisture conditions. The City is situated on the alluvial flood plains of the Arroyo Verdugo Wash, Sycamore, Verdugo and Scholl Canyons and the Verdugo and San Gabriel Mountain drainages which have an extensive history of slope failures causing serious floods and mud slides especially

- when a heavy rainy season occurs after a severe brush fire. New constructions or additions in said areas must be regulated to assure that hillside slides will not be exacerbated, and if possible, will be improved.
- E. This amendment is necessary for administrative clarification, which does not modify a California Building Standard pursuant to California Health and Safety Code Sections 17958, 17958.5 and 17958.7. This amendment establishes administrative standards for the effective enforcement of grading standards throughout the City of Glendale.
 - F. This amendment is justified on the basis of a local geologic condition. The City of Glendale is subject to earthquake hazards caused by its location on the Sierra Madre fault near the base of the San Gabriel Mountains. Said fault is the eastward extension of the same fault upon which the 1971 San Fernando earthquake originated. Other faults which potentially could cause seismic activity in the City include the Verdugo fault located near the southwest edge of the Verdugo Mountains and its branches to the east, the Sycamore Canyon fault, the Scholl Canyon fault and the Eagle Rock and San Rafael faults. The York Boulevard fault is also important in that it is a western extension of the Raymond Hill fault for which there is considerable evidence for recent geologic activity. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. This amendment establishes grading standards that are intended to improve the performance of graded sites that may be subjected to seismic movement, including both vertical and lateral ground surface acceleration. Thus, because the City is within a seismic area which includes earthquake faults within and through the jurisdictional limits of the City, the modifications and changes cited herein are necessary to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.
 - G. This amendment is justified on the basis of a local climatic condition. The seasonal climatic conditions during the late summer and fall create severe fire hazards as hot, dry weather in combination with Santa Ana winds frequently result in wildland fires in the thousands of acres of brush-covered slopes in the Verdugo and San Rafael Hills, Chevy Chase Hills and Repetto Hills areas of the city, which can rapidly denude natural vegetation. The City of Glendale is also subjected to heavy seasonal rains, which are generally more intense than most regions in California. The City's orientation within the Verdugo Mountains results in a concentration of rainfall during the fall and winter seasons, which often result in severe ground and slope saturation. The City is situated on the alluvial flood plains of the Arroyo Verdugo Wash, Sycamore, Verdugo and Scholl Canyons and the Verdugo and San Gabriel Mountain drainages which have an extensive history of slope failures causing serious floods and mud slides especially when a heavy rainy season occurs after a severe brush fire. New construction and additions in said areas must be regulated to assure that hillside slides will not be exacerbated, and if possible, will be improved.
 - H. This amendment is justified on the basis of a local topographic condition. The City of Glendale is situated in an area of significant hillside terrain, which includes areas that are very steep and prone to both surficial and deep-seated

slope failures. The topography of portions of the City of Glendale include steep, continuous slopes that are several hundred feet in height, and extend across multiple parcels including privately owned property as well as public right-of-way and publicly owned open space. The topography in many areas is too steep to support significant vegetation, and is prone to erosion during seasonal heavy rains. Other portions of Glendale include lower elevation topography that is located in close proximity to natural waterways which result in high water table conditions. Such topography is typically associated with liquefaction-prone property, and many such regions have been identified on the state's Seismic Hazard Maps as candidates for potential liquefaction activity.

